THIRD SERIES VOL 61 NUMBER 4 FEBRUARY 1954

# THE JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

6 PORTLAND PLACE LONDON W1 · TWO SHILLINGS AND SIXPENCE

*la Conti, now Lampertico, called 'La Deliziosa', Montegaldella. From the Exhibition of Venetian Villas*

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66 PORTLAND PLACE LONDON W1 TELEPHONE: LANGHAM 5721-7 TELEGRAMS: RIBAZO WESDO LONDON

FEBRUARY 1954




**English and Venetian Villas**

Members are reminded that a sessional paper, 'English Villas and Venetian Decorators', is to be delivered by Mr. F. J. B. Watson, F.S.A., Deputy Keeper of the Wallace Collection on Tuesday, 2 March at 6 p.m. This comes opportunely with the exhibition of photographs of Venetian Villas, which is on view at the R.I.B.A. from 25 February to 27 March. These villas were a main source of inspiration for the classical country houses of England on which Mr. Watson is to speak.

**Science Lecture Postponed**

The lecture by Mr. H. S. Gloag [*A*] and Mr. David L. Medd [*A*] on 'Changing Ideas on Colour with some Technical Implications' which was to have been given on 23 March has been postponed to a date to be announced later.

The lecturers intended to discuss colour range design in general, and the R.I.B.A. Range of Paint Colours for Building (recently approved in principle by the Council) in particular. As however this range is now being examined in detail by representatives of the paint industry, it has been thought desirable to postpone the lecture until the result of this examination is known and the necessary joint consultation between the Royal Institute and the industry takes place.

**Basildon Development Corporation**

The Minister of Housing and Local Government announces that Sir Lancelot Keay, K.B.E., Past President R.I.B.A., has stated that he does not wish to be re-appointed chairman of the Basildon Development corporation, owing to other commitments which include the chairmanship of the Bracknell Development corporation. The Minister is proposing to appoint Lieut.-General Sir Humfrey Gale, K.B.E., C.B., C.V.O., M.C. to fill the vacancy. Sir Lancelot's term as chairman expires on 2 March.

**Architectural History Award**

The Society of Architectural Historians, which was founded in the U.S.A. in 1940, has made its annual award for the most outstanding contribution to architectural history to Dr. Thomas Howarth [*A*] for his book *Charles Rennie Mackintosh and the Modern Movement*.

The award this year is the Alice Davis Hitchcock plaque, presented to the Society by Professor Henry Russell Hitchcock [*HCM*] in memory of his mother. It is a Wedgwood medallion in a pewter frame of the architect James Stuart (1713–1788) modelled by William Hackwood.

**Representation of Members and Students in Salaried Employment**

The Council have been considering the question of the representation of members and Students in salaried employment for the purpose of negotiating salaries and conditions of service. The problem is one of complexity and before a decision is reached as to what further steps might be taken, it has been decided to obtain an expression of opinion from all members and Students in the United Kingdom.

A questionnaire form, together with an explanatory letter and a summary of a report on the subject prepared by the Salaried and Official Architects' Committee, is being sent out to all members and Students in the United Kingdom. It is of importance for the Council to obtain the most accurate assessment of opinion possible, and to this end all members and Students are especially asked to complete and return the questionnaire form, whether they are now in salaried employment or not.

**Housing Repairs and Rents Bill, 1954**

The response from members practising in London and Middlesex to the announcement in the Editorial of the JOURNAL for January has been disappointing. As announced, lists of architects available to undertake the survey and restoration of obsolescent properties are being prepared for deposit with local authorities in the counties of London and Middlesex. These lists will be completed and sent to local authorities by the end of March 1954, and it will not be possible to accept further names for addition to the lists after that date.

**The A.B.S. Ball**

The accounts of the Annual Ball held in aid of the Architects' Benevolent Society Centenary Fund have now been completed. A total profit of £2,350 has been achieved, an amount considerably in excess of the provisionally estimated figure we announced in the December JOURNAL and some £350 more than in 1952. This reflects great credit on the enthusiastic band of entirely voluntary workers who laboured so hard to make the Ball a success.

Tickets were sold out a fortnight before the Ball was held and there were some complaints of overcrowding. As the committee do not like to turn good money away, it is likely that this year's Ball will be held at Grosvenor House.

**New Year Honours List—Addendum**

*B.E.M.* The British Empire Medal has been awarded to Mr. T. Jarratt [*L*].

### Rebuilding the City. Distinction in Design

The following letter from the President was published in THE TIMES of 18 January 1954.

SIR,—The vast majority of architects will both applaud and support Sir David Eccles in his appeal made at the Mansion House on 14 January for better building in the City. The Minister of Works's survey of the situation is factual, courageous, and above all imaginative. It is not too late to follow up his suggestions, and building owners will surely feel that behind the proposals lies a genuine and public spirited desire to make the rebuilt City worthy of this age.

Distinction in design, the studied use of materials, the characterisation of each building problem in terms of form both logical and expressive are the objects which the architect should have at heart. The strait-jackets both of the neo-Georgians and of doctrinaire modernism are artificial design restrictions to be discarded; and there need be no fear of free individual expression within a framework of harmony and order which by mutual consultation might be established among City building owners.

It is for the client to set the pace, and stimulate his architect. If the client is luke-warm towards distinction in building, it is far less likely to be achieved. The willingness of business men in the United States, during the past 50 years, to support original and progressive design has been largely responsible for the great development of commercial building in the United States. Developers have on the whole been remarkably willing to follow architects all the way in building ventures, often boldly experimental; certainly no one can attach the label of timidity to the resultant structures.

Latent in Sir David Eccles's speech is a clear call to building owners to play an imaginative part in the present enterprise of City rebuilding; so that they, and their architects, will be both proud and eager to display the restored City to our visitors as an example of the fine things which in spite of heartbreaking delays we have been able to achieve.

Yours faithfully,

HOWARD ROBERTSON, *President R.I.B.A.*

### Purchase Tax on Flooring Materials

The recent imposition of a 25 per cent purchase tax on thermoplastic tiles and similar flooring materials was considered by the Council at their last meeting. It was agreed that this tax constituted an artificial additional increase in the costs of housing and it was decided that representations on the matter be made to H.M. Treasury.

### Films by the British Transport Commission

Recently the British Transport Commission showed to a small gathering, which included the JOURNAL, some of the films made by their film unit; these included *Open House*, depicting some of the historic houses which can now be inspected by the public; *This is York*, giving an insight into the work of the stationmaster there; *There Go the Boats*, a travel film of some of the canals and inland waterways of England; *Journey into History*, attractively introduced by shots of porcelain figures, and *Ocean Terminus*, descriptive of the maritime arrivals and departures at Southampton.

With an art that conceals artifice these films deal with their subjects in so well-produced and interesting a manner that the British Transport Commission is kept in the background, and it is not until the lights go up again that one realises that the Commission can convey one to these places so pictorially shown.

The ramifications of the work of the Commission are perhaps most clearly hinted at—for they are not stressed—in the York film, which shows something of the organisation necessary to receive and send away the numerous trains that enter and leave York station every day; seeing that film might cause a traveller to pause before grumbling that the 10.44 was two minutes late.

### The Nuffield Foundation: Architectural Studies Division

The Nuffield Provincial Hospitals Trust established a research team in 1948 to investigate the functions and design of hospitals. The work of the team, which has been under the direction of Mr. R. Llewelyn Davies, B.A. [*A*], was concluded in 1953 and the report is to be published this year. Experimental hospital buildings, designed to test and demonstrate the team's conclusions, are being built; plans and descriptions of them have been published.

The Trust have been asked by other bodies to apply the team's methods to other types of building, in particular laboratories and farm buildings. The Trustees of the Nuffield Foundation have decided to establish for a period of ten years a Division of Architectural Studies. The Division came into being on 1 January and will be occupied in the first instance with continuing investigations into hospitals and with a study of research laboratories. The R.I.B.A. Council have welcomed the proposal and expressed their willingness to collaborate.

A controlling committee has been set up under the chairmanship of Mr. L. Farrer-Brown, Director of the Nuffield Foundation and its membership includes Sir William Holford [*F*] and Dr. F. M. Lea, C.B.E. [*Hon. A*], Director of Building Research. Mr. Llewelyn Davies is to be Director of the new Division.

The Division's method of work will be similar to that established by the team which has been studying hospitals. This team includes architects, a doctor, a nurse, an historian and a statistician as well as other workers. Thus each project undertaken by the Division will be studied by a group of workers with appropriate qualifications and experience. The Division will continue the arrangement for joint work established between the Investigation and the Building Research Station. In the hospital field the Division plans, on behalf of the Nuffield Provincial Hospitals Trust, to make the problem of the care of children in hospital the first centre of its studies. In the study of laboratories attention will be first focused on research laboratories.

### The Home and Surroundings Exhibition

The first copy is now showing at Messrs. John Walsh Ltd., High Street, Sheffield until 13 March, after which it will be at Derby from 18 to 31 March at the College of Art, Green Lane.

The second copy is on view at Oxford in the shop of Elliston and Cavell, Magdalen Street, from 24 February to 10 March. It then goes to High Wycombe and will be shown at the Public Library and Museum from 15 to 27 March.

### Small Exhibitions at the R.I.B.A.

The custom of having frequent small exhibitions on the main staircase landing seems now to have become established. The premiated designs in the Sheffield University Competition were shown in January. Those in the Falmouth Secondary Modern School Competition will be on view in April; the dates are not yet fixed and will be announced in the March JOURNAL.

This month the three prize winning models in the competition for the Royal Armoured Corps Memorial to be erected in Hyde Park were shown. The winner is Mr. A. E. Sean Crampton, M.C., G.M.

### R.I.B.A. Diary

THURSDAY 25 FEBRUARY–SATURDAY 27 MARCH. Exhibition, Photographs of Venetian Villas. Mon.–Fri. 10 a.m.–7 p.m. Sat. 10 a.m.–5 p.m.

TUESDAY 2 MARCH. 6 P.M. General Meeting. *English Villas and Venetian Decorators*—F. J. B. Watson, F.S.A., Deputy Keeper of the Wallace Collection.

MONDAY 8 MARCH. 6 P.M. Library Group Meeting. Identification of unknown drawings in the possession of the R.I.B.A. Library. (*Note*. The Science Lecture scheduled for 23 March has been postponed to a date to be announced later.)

# Address to Students by the President

Howard Robertson, M.C., A.R.A., S.A.D.G.

At the R.I.B.A. 2 February 1954

THIS IS almost certainly the last opportunity when I have the privilege of addressing you on an occasion of this particular importance.

I have made two inaugural addresses, like most good boys who are re-elected to the Chair, and I have not wasted time in re-reading them. Of one thing I am conscious, that in the parts of them that dealt with architecture I was both woolly and inevitably pompous. The reason is, of course, that none of us has got all the answers, and the really wise ones should refuse to commit themselves.

What I have re-read, however, are the addresses of Mr. Michael Pattrick and Mr. Barnett Freedman at the A.A. Prize-giving in July last year, not forgetting the most interesting contribution made by Mr. A. Diprose, Chairman of the Students' Committee. I have gone further back and read Mr. Lewis Mumford's talk at the A.A. in May 1953, and the very cogent comments made by his questioners. And finally, much later, I have read several times, for sheer joy, the A.A. Presidential address of Sir Hugh Casson, who can discharge more arrows without hurting the victim than any man I know.

In all these addresses there have been sounded notes in varying degrees suggesting bewilderment, uncertainty, or even despair. Where are we going, if anywhere? Where are the leaders, now that Mr. Mumford has isolated and pinned down the scope of the contribution of such men as Mies, Le Corbusier and F. L. Wright, and he and others have achieved a partial 'debunking' of some spectacular modern buildings? In a sense, one concludes that we are marching in parallel with the painters' world, where abstractionism is said to be out, except for a few loyal men either martyrs or incompetents, expressionism and existentialism are still in, and realism while gaining ground is still a term of reproach or in need of another name.

Fortunately for us, architecture has a solid basis, but that basis has to be determined by profound and constant study. We architects are what I would call 'serialists'. Leaders, and leadership, are of little value except as a demonstration that leading figures have emerged, and will continue to do so, as a demonstration of the fact that personal gifts, coupled with enormous and continuous application, can bring men to the point where their architecture provides an incentive to us all to do likewise.

But we cannot appropriate their gifts, nor short-circuit the processes by which we might attain a similar position of inspired achievement. All we can do is to try, through the processes of education and training open to us, to indicate one or two principles which might be followed and suggest what may be considered, from a practical standpoint, as fallacies or at least misconceptions.

Taking the latter first, I believe myself that in schools of architecture what might be called eminent leadership is not essential. The best teachers are not always the finest executants, and that has held good for painting, music, and other arts. To have a few lessons from Liszt, when one had mastered all technique, was clearly of marvellous value: so too would be a short stage with our great masters of architecture: but only after one has begun to develop one's own basic thoughts and principles. For inculcating these, humbler and more devoted guides are necessary. But even they cannot draw out from a student more than he has himself put in through diligent preparation. So I regard the call, sometimes heard today, for great leaders, as one unlikely to be answerable, and disappointing were it answered; especially since great leaders are generally great individualists, and their paths do not converge on any platform of ideals that can be focused and pin-pointed for teaching purposes.

The principle that I would suggest as more directly applicable, and useful, is a return to the conception of architectural design as, basically, a solution. Having achieved a solution, comes the conception. They may come together. But I think it is wise to take the solution first in one's approach to a problem at school or in the office.

To achieve a solution entails study of all the requirements, the governing factors. The use of space, the limitations, the directives of the programme, and the laying down of a framework at least adequate to, and preferably suggestive of, the maximum aesthetic possibilities. But remember that in the search for a solution it is necessary to make maximum use of vision in three dimensions.

In approaching this search for a solution, we should throw away all thoughts of being like Corb, like Mies, or anybody else. If one studies their work as a stimulus it should be from the angle of the solution *they* offered to *their* problems, and not from that of what the buildings looked like.

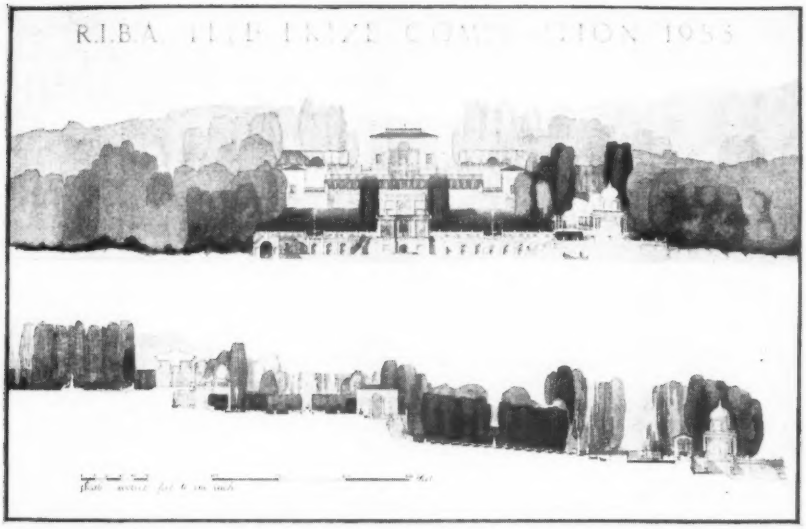
Some may object that this approach to design through the solution is out of date, that it is the old Beaux-Arts idea again. To that I answer, never mind. It is the one principle that lifts architectural design out of the battle of styles and 'isms' for a goodly portion of its process of development. It provides a basis of unassailable logic not to be found in expressionism by itself, and brings out the common denominator that lies within all satisfactory design; the denominator that makes it possible to assemble good furniture of nearly all periods in a room, and good buildings of widely varying periods and individualities in a street.

In approaching a solution the skilled brain and eye develop a subconscious feeling for possibilities, and also for those awkwardnesses which may threaten satisfactory compositions. A warning bell sounds in that same subconscious, and one tackles the potential snag from another angle.

I have referred to the skilled eye; I mean also the practised eye. A sense of potentials or snags in plan, section, and massing comes only with practice, but it develops very quickly.

But the practice is necessary. And that is why I personally am sorry to see the disappearance of the esquisse, and the esquisse-esquisse. These drawings represented solutions, without their development; but by repeating them very frequently a school student could develop a great capacity for setting down the fundamentals of a solution to a given programme. The esquisse, with its limited scope and time for production, provided the same stimulus to design as do those limiting factors in an actual building problem whose challenge brings out the full resources of the architect who is struggling to resolve them.

One main point is enough meat for any discourse on those problems of design which preoccupy us all. If our forward march in contemporary architecture is today a little hesitating I think it is because, in school and out of it, we are forgetting that the basic test for a piece of architecture, underlying the quality of its expression, is its practical answer to the problem in terms of satisfactory composition.



The Tite Prize. Subject, an Italian Lakeside Garden. Winner, G. E. Howard [*Student*], Manchester University School of Architecture. Elevation and section

# Criticism of Work submitted for Prizes and Studentships, 1954

## By Basil Spence, O.B.E., A.R.A., A.R.S.A. [*F*]

**Mr. Basil Spence:** I often wonder when I look at students' work why this high standard is not maintained after they go into the jungle of private practice. If you go upstairs and look at this work, you will see that it is terrific. One's first impression is that it is absolutely wonderful, and I think that impression is maintained despite a thorough examination of the drawings. But quite often when the students who have done so well here go out, somehow it fades.

You must cling to your beliefs. Each winner upstairs shows belief. There is integrity. These things must be nursed as precious jewels. They should not be allowed to be lost.

Three important factors make good building. One is that the physical conditions should be right—the physical and practical things like a good site and a good budget (which is most important), and you should have good building materials and decent workmen to carry out the work. These are the practical conditions.

Secondly—and very important—the commissioning agent should be a sympathetic, knowledgeable man, understanding and patient. It is very important that your client should be a real patron.

Thirdly—and I think it is the least important—the architect himself should have talent.

The first two are like sluice gates. If they open a little, so much talent can get through, but if they are wide open, it rushes through.

In what we see upstairs the first two conditions are ideal. A student can call on an almost unlimited budget. His workmanship is shown by the degree of draughtsmanship at his command. If he has neat crisp drawings, they look beautifully carried out and he has an immaculate building. He is his own client, and, therefore, he has sympathy there.

The final test is: what is the gauge of his talent? That is my feeling in the matter, that you must hang on to your belief and integrity if you can.

I would like to say at least a word or two about every set of drawings submitted. I think this is right because these sets represent the finals of hotly contested competition, especially in the case of the Tite and the Soane, but if my remarks are brief it is because I have a great deal of ground to cover.

Though a critic serves on all the Juries, and I therefore take part in the judging, I am really their mouthpiece, and here and now I thank them for being so patient with my request that they should jot down remarks about every set of drawings.

The two main design prizes this year are the Tite and the Soane. The subjects are similar in character, calculated to stimulate the imagination of the contestants.

The key to the **Tite** is the use of stairs, landscaping and waterscaping in almost ideal conditions. A stair is not only a device for getting from A to B. There is a philosophy behind the design of stairways. They can be cradles of beauty—for example the Opera stair at Paris and how it comes to life as a dazzling spectacle of life and movement when the youth, fashion and sophistication of Paris tread lightly up, and especially down, the immaculately proportioned risers and treads.

The subject set by the Jury was 'An Italian lakeside garden—laid out to celebrate the discovery of a hillside spring near a great Italian villa'. What a lovely subject—what a marvellous job if it happened in real life! The response at the esquisse stage was most heartening and the Jury admitted fifteen to the final, but the stairs were too much for the short-winded, and a large proportion of the finalists could not stay the course and did not maintain the high promise of their esquisse. The Jury felt, however, that this year there was great enthusiasm and vitality.

I will take the winner first, No. 11, HORACE (Mr. Geoffrey Edgar Howard)—a very good scheme showing a consistent and sensitive handling of the site, and the Jury was especially pleased with the control exercised at all stages. He is a worthy winner. The esquisse, however, showed a beautiful informal secondary approach which was dropped on the final scheme, and we felt this was a pity.

There are four commended designs and I shall take them in numerical order as they appear—No. 4, NABIT (Mr. Alexander Duncan Bell), No. 5, FALSTAFF (Mr. Neville Whittaker), No. 9, GEORGESON (Mr. Ian Curry) and No. 12, LARGO (Mr. George Duncan.

No. 4, NABIT, is commended for his industry and his design has quality, but the Jury felt that it was overscaled and fussy.

No. 5, FALSTAFF—this design had verve but the scale was defective. How was the owner of this house to clip these enormous hedges which appear to be over 40 ft. high? In spite of this, the important feature of a fountain is far too small in scale.

No. 9, GEORGESON—the Jury liked this design; we felt, however, that it was overrendered and laboured, but we also felt that the detail was sensitive and the drawing full of interest.

No. 12, LARGO—this scheme was the best of the unsymmetrical ones submitted, but generally it was not up to the quality of the winner's, and though the Jury liked it we felt the detail was on the coarse side. He has, however, shown a real flair for water-colour.

The subject for the **Soane Medallion** was a very stimulating one which gave some scope for the imagination, but only one competitor really went to town—the winner. The subject was 'St. Paul's stairs and terrace—the river approach to the Cathedral'—a very nice subject, a sort of Propylea to the Parthenon. As in the case of the Tite, the Jury was pleased with the vigorous response at the esquisse stage again admitting a large number to the final (14), but some of the final results were disappointing, and the subject appeared far too difficult for some of the contestants.

No. 1, ELSINORE (Mr. David Rock) is the winner. This design is a most interesting one, having a great deal of character, invention and imagination. The Jury felt that there were too many ideas for this

subject and because of this the design has many faults; which, however, the Jury felt were counterbalanced by the creative ability displayed by the author. The imaginative way that the ancient walls and roads were preserved was specially commended and parts of this design have great beauty. It was even suggested by one member that this could have been a simultaneous entry with the Owen Jones.

If this were to be a serious project, however, many points on plan and section would have to be reconsidered. For instance, reception on the second floor—having got there you would have to come down again to the first floor; the tortuous route for processions over bridges and ramps. The shocking surprise effect in all parts of the design of low ceilings bursting into limitless space—all these are exciting and show a positive attitude in design, but in the opinion of the Jury this was overdone, and we felt also that the scale was not consistent throughout this design. And what about the queer metal flags on the main axis to St. Paul's? These are doubtful, to say the least. But I noticed that certain members of the Jury looked at Mr. Rock's designs with a gleam of envy in their eyes, as he has so obviously enjoyed every square inch of his drawings.

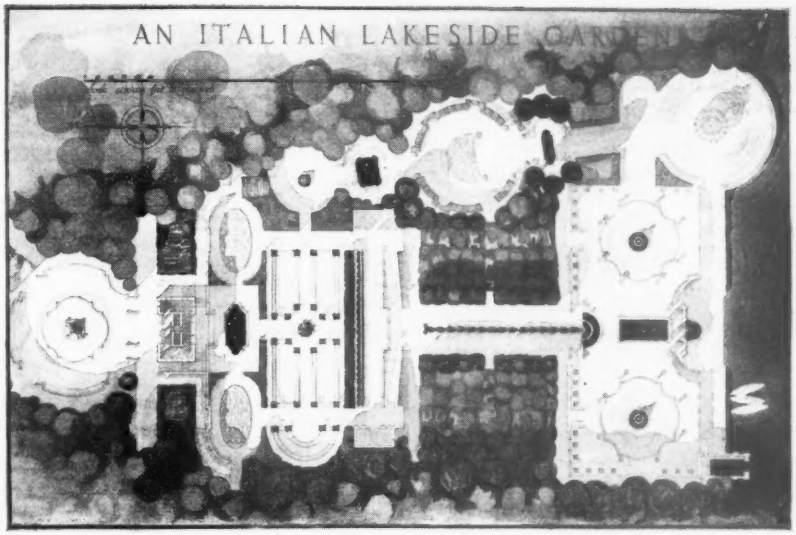
Numbers 11 and 12, NIBAR and THRUSH, which were commended, I propose to group together as they were quickly nicknamed 'The Siamese Twins'. Since this name was given to these two designs it was found that these are the designs of Mr. Brian Geoffrey Cobb (NIBAR) and Mr. Derek Anthony Cobb (THRUSH)—it is a most interesting fact that they are identical twins. There is a great deal of similarity between these two schemes even to the pleasure boat, and it was strongly felt by the Jury that they came from the same school—of thought. The authors of these two designs are to be commended on their simple approach and their controlled imagination, and both display a clarity and a simplicity and restfulness: qualities largely lacking in the winner's design.

I will now take the **Pugin Studentship.** Only three sets of drawings were submitted.

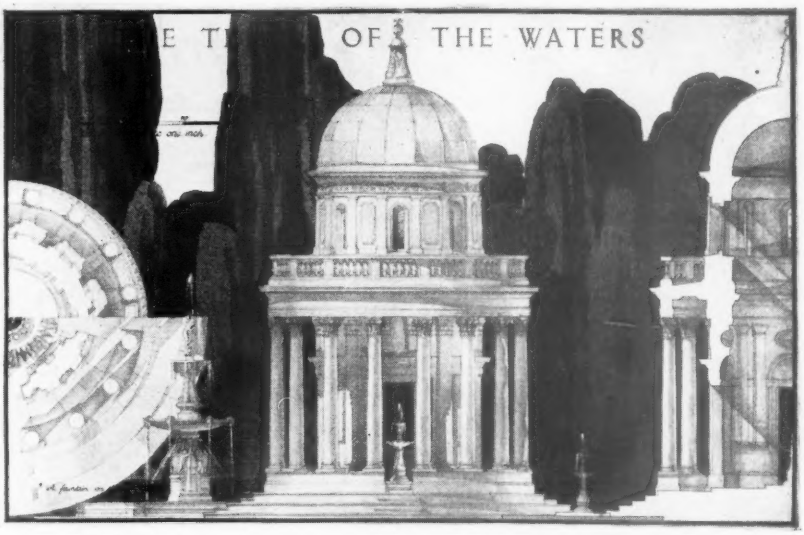
The Jury recommended that the Pugin Studentship be awarded to Mr. C. S. Rowberry, who submitted six sets of drawings of portions of ecclesiastical buildings including Northleach Church, Worcester Cathedral, and Tewkesbury Abbey.

The winner's set is well up to standard, with the measured work much in freehand, the latter being of excellent quality representing admirably and sympathetically the spirit of Gothic and the three-dimensional form of the structure. The use of colour showing its application in glass, wood and stone is to be commended, while the details of gargoyles, dripstones and grotesques have caught the bucolic humour of the mediaeval mason. He has obviously enjoyed himself.

The **Owen Jones** comes next. The Jury was much interested in this year's entries and has awarded the prize to No. 2, JEREN (Mr. J. R. Notman), who shows




The Tite Prize. Plan and detail by the winner, Mr. G. E. Howard [*Student*]




drawings of great sensitivity, extremely well presented. However, the Jury felt that there was a film of safe taste over his own design, though his drawings are most exquisitely put on paper.

There are two commendeds: No. 1, CHIBIABOS (Mr. A. J. Stevens) for a great volume of work and showing an intense interest in colour, but in the application of this knowledge to such mundane problems as kitchens he has not maintained the high standard of some of the studies.

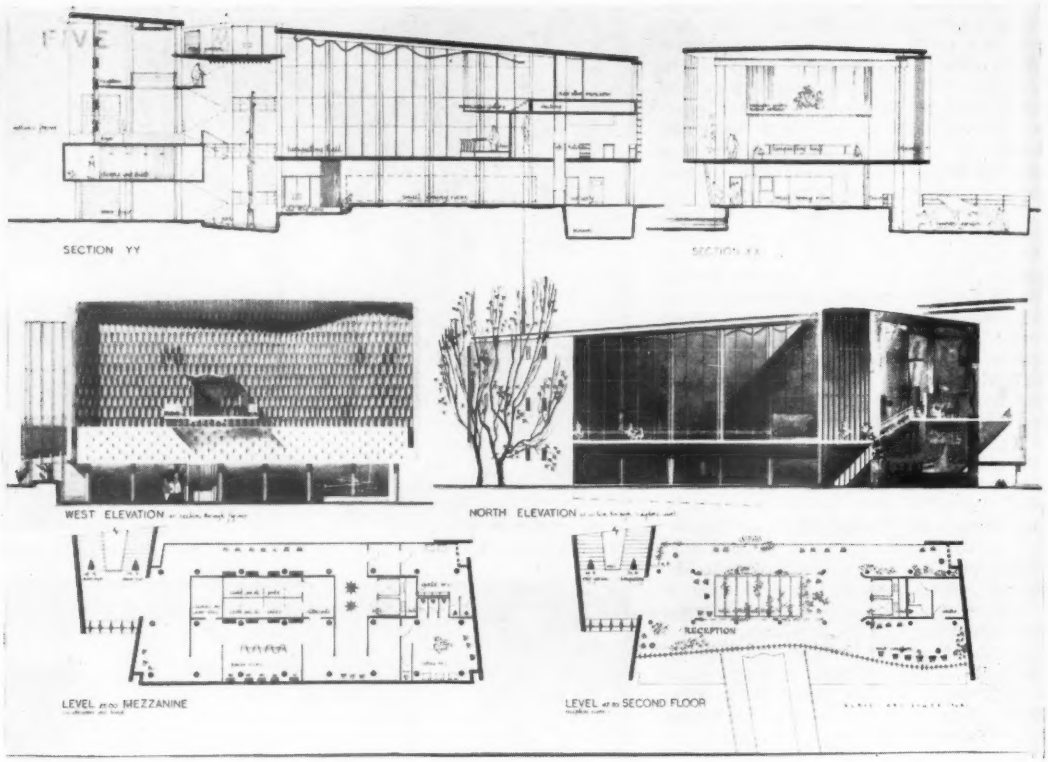
Also commended is No. 4, JANOS (Mr. J. E. S. Sayers) for a most interesting study which caused a great deal of discussion in the Jury. I, personally, found some of these drawings enchanting, but though this competitor shows great talent, the Jury was not convinced that this knowledge could be applied to architecture, as his drawings did not prove this application. Nevertheless, they felt he had the most sensitive colour sense of all the candidates.

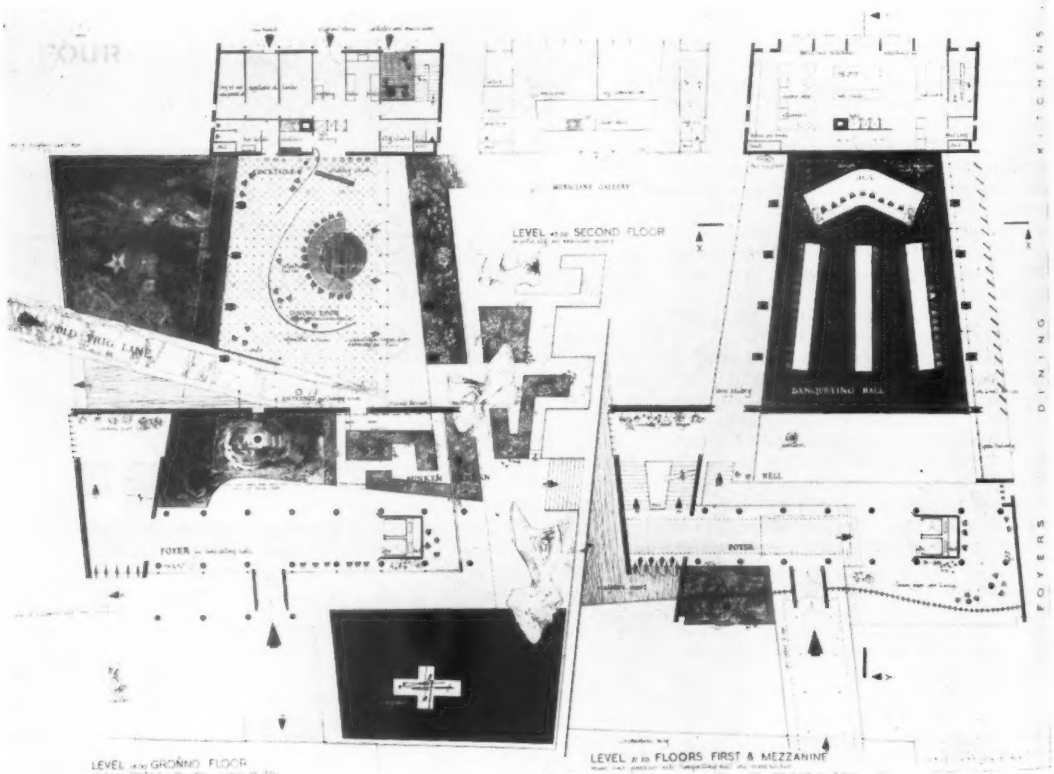
It may be of interest that the Jury deliberated for three hours before arriving at this decision.

Now for the **R.I.B.A. Silver Medal and £50 for an Essay.** Although it has been emphasised repeatedly, some candidates continue to submit theses rather than essays and do not pay enough attention to literary quality, which is the primary requirement of an essay. It is also felt that there is a tendency to submit mere compilations of published and known facts rather than to contribute to architectural thought or scholarship.

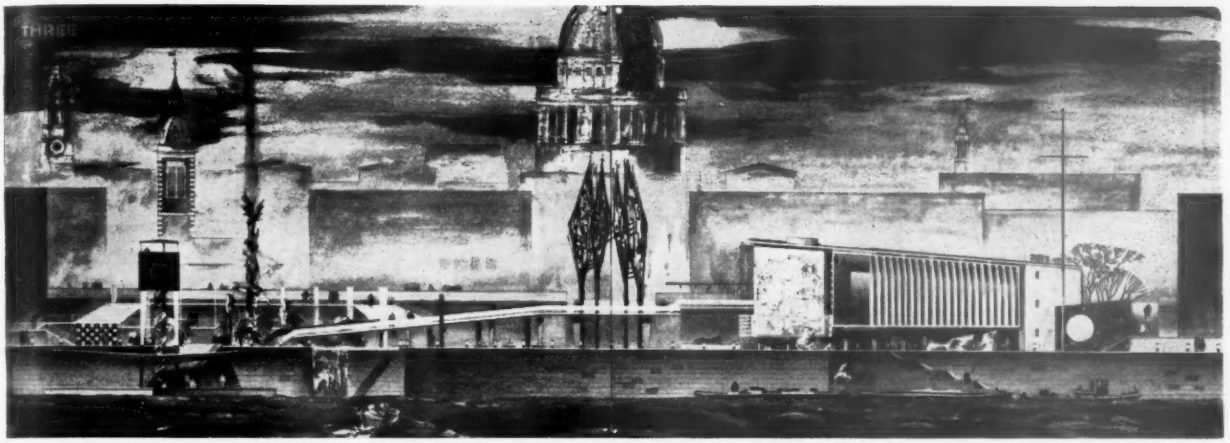
The Jury was of the unanimous opinion that the essay submitted by No. 1, EPALINOS (Mr. Peter Collins), on 'The Architectural Doctrine of Jacques-François Blondel', avoided all these errors, except

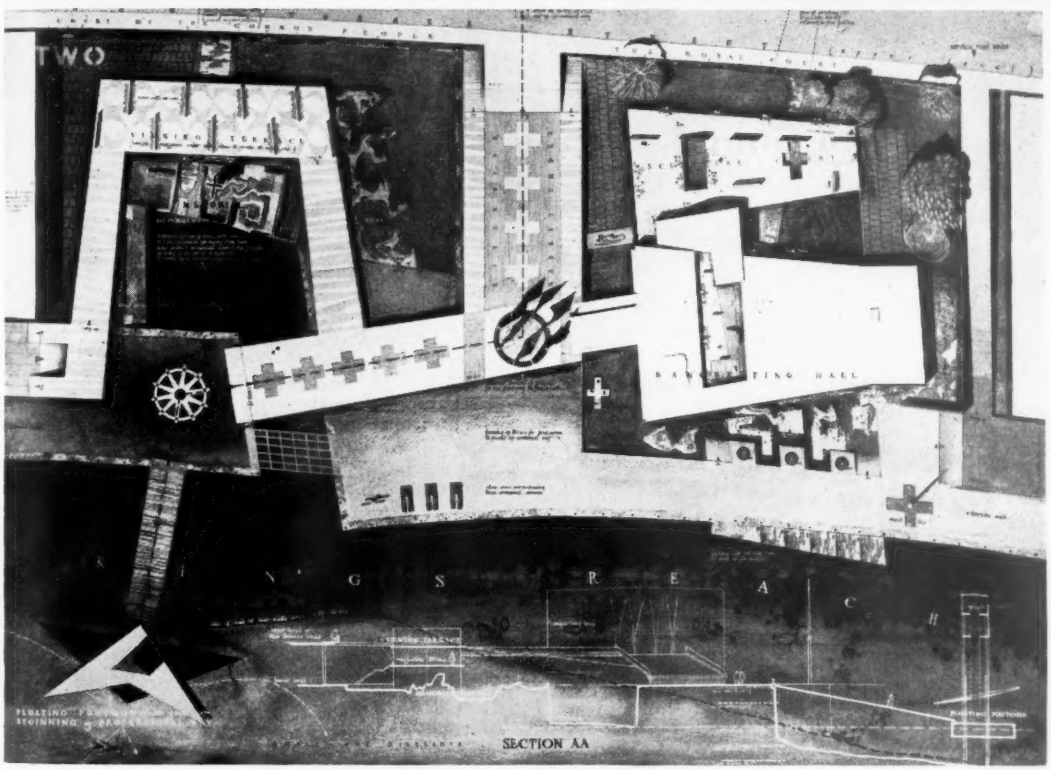
The Soane Medallion and £120 for Architectural Study Abroad. Subject: St. Paul's Stairs and Terrace




The Soane Medallion. Above, sections and elevations; below, plans of the winning design by D. A. Rock, B.Arch. (Hons.) (Dunelm) [*A*]






The Soane Medallion. Principal elevation of the winning design by Mr. D. A. Rock, B.Arch. (Hons.) (Dunelm), School of Architecture, King's College, Newcastle upon Tyne.

The Soane Medallion. Principal plan of the winning design. Subject: St. Paul's Stairs and Terrace

in the ending which is a rather banal and naïve expression of the candidate's views on the application of Blondel's teaching to current architectural education. This is an interesting study of a man whose work is little known to the student of today in Britain. It is scholarly and careful and in many ways a useful contribution to historical knowledge. In its time, Blondel's work was chiefly important in that it seemed to provide a rational and in some ways original approach to architectural analysis.

The essay by AGRICOLA (Mr. Ronald Trenbath) on 'The Redevelopment of Rural Areas' was not of such a high literary standard but in the opinion of the Jury deserves an honourable mention because of its original contribution to the subject.

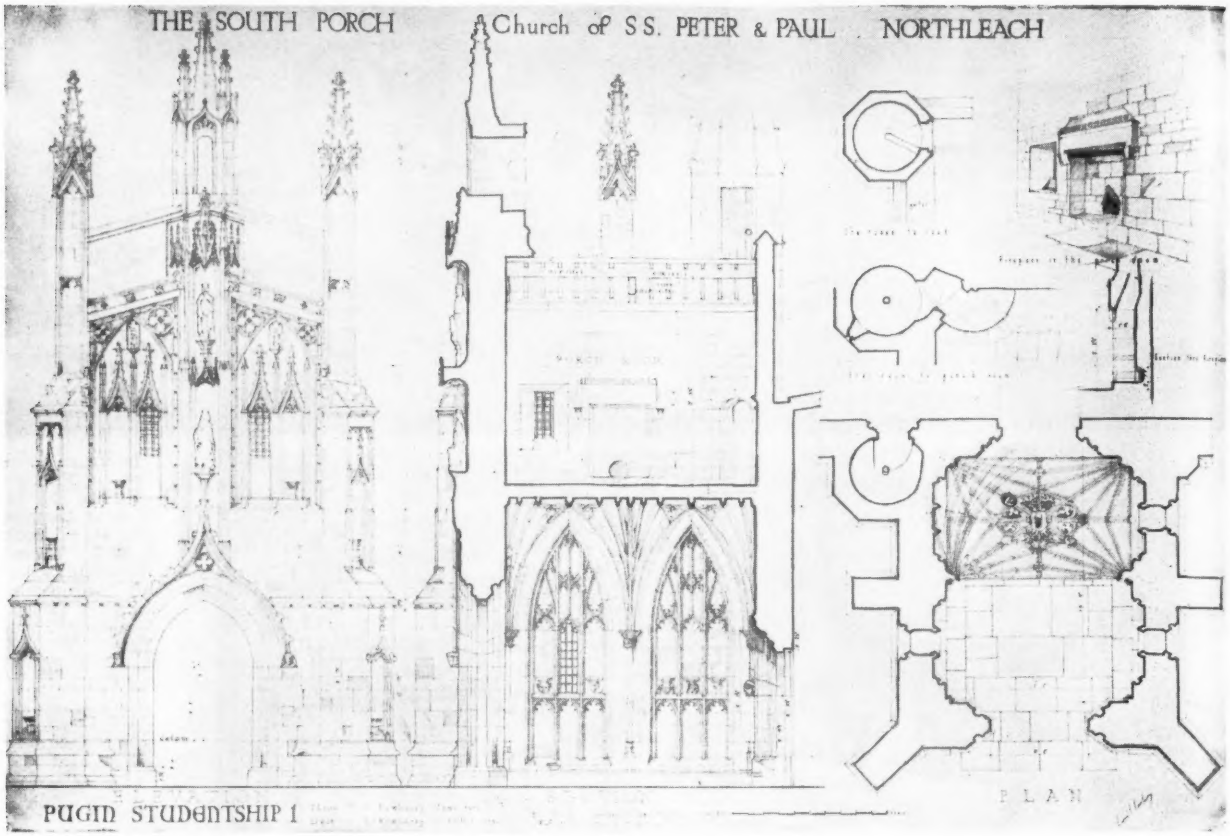
The Jury recommended that the **Banister Fletcher Silver Medal** for an essay should not be awarded as it was not up to standard —a most disappointing decision.

And now the **Grissell Gold Medal.** There was only one entry—EPICURUS (Mr. M. P. Bates). This is a praiseworthy scheme, it follows the lines of the programme literally and embodies all features and accommodation required: a good clear set of working drawings with the details well laid out and well notated. The draughtsmanship is excellent. The planning, however, is weak to a certain degree in the following respects: there is unduly long circulation for the first floor rooms, a wasteful use of space in the entrance hall and the landing above, the staircase might have been more centrally placed and the kitchen seems large for the limited use envisaged.

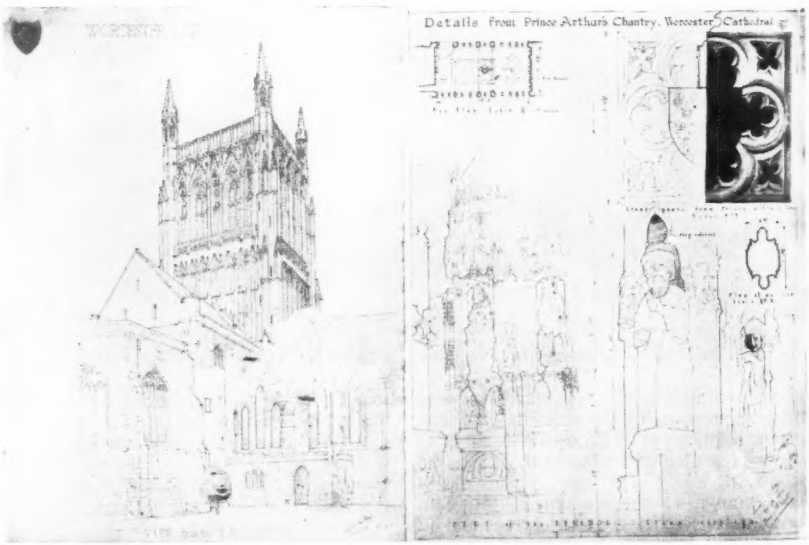
**The R.I.B.A. Silver Medal and £10 in books** for students of schools of architecture recognised for exemption from the Final Examination goes to Mr. James Beveridge.

**The R.I.B.A. Bronze Medal and £10 in books** goes to Mr. Francis Sibbald White.

I now come to the **R.I.B.A. Prizes for Public and Secondary Schools,** for which an




The Pugin Studentship: A Silver Medal and £80 for the Study of Mediaeval Architecture of Great Britain and Ireland. Two drawings by the winner, Mr. C. S. Rowberry [*Student*], Birmingham School of Architecture




interesting set of drawings and essays were submitted.

For the essay, the prize has been divided between D. G. Muir of Edinburgh and A. J. Howrie of Loughborough. Howrie's essay was excellently presented—an extremely well-balanced account of the Guildhall, Leicester, which went far beyond the guide book. Muir's original and vigorously worded essay was an appreciation and criticism of the Glasgow School of Art. The Jury felt, however, that its presentation was casual.

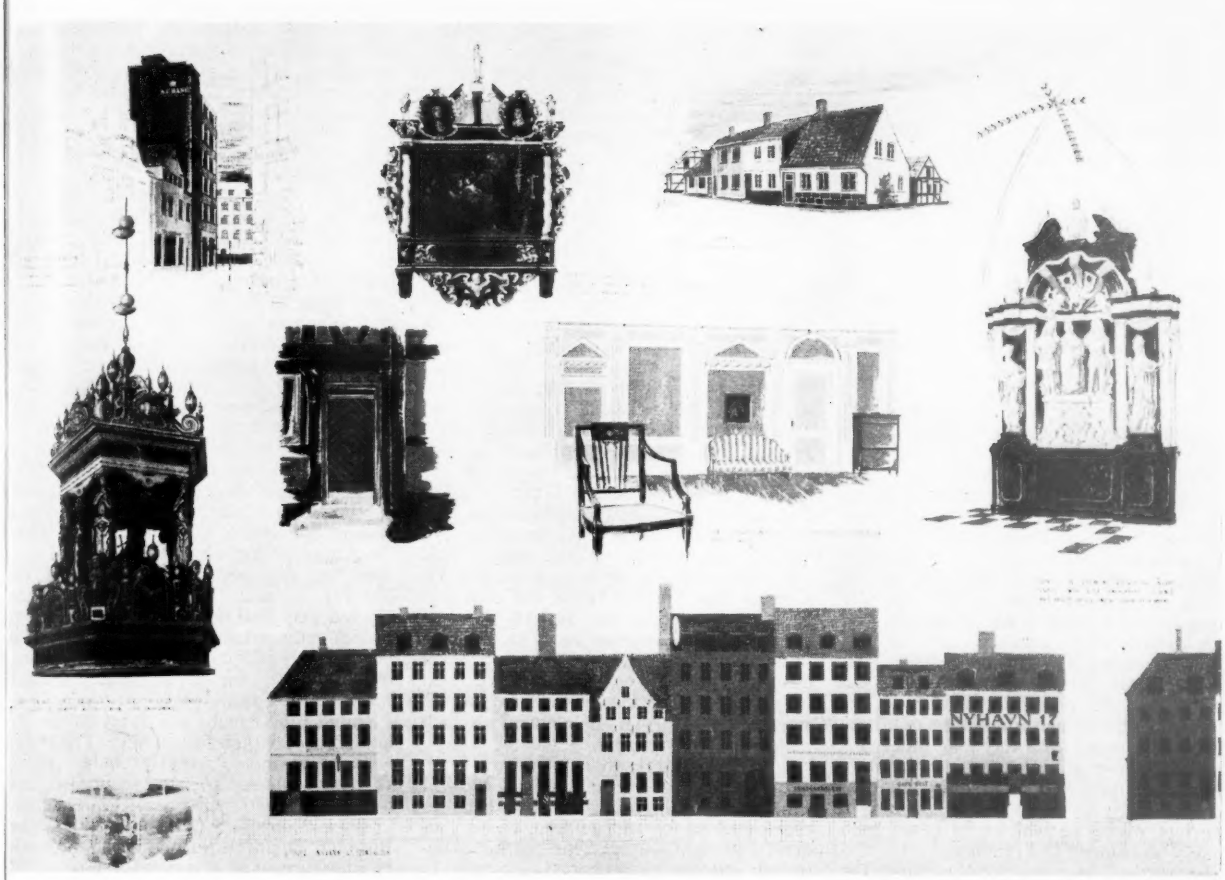
The prize for the drawings was divided between J. Williams of Bath, C. R. Fisher of Mitcham, and P. Bonnet of Plymouth, as great difficulty was found in comparing works so diverse though each excellent in its own field. Williams submitted a measured drawing of the Palladian Bridge at Prior Park outstanding in precision and delicacy. Fisher's pen and wash drawings of the whole of the Prior Park buildings showed a clear grasp of subject and form and great power in delineation. Bonnet's pencil drawings of Plympton Church excelled in technique and caught the life and spirit of Gothic masonry.

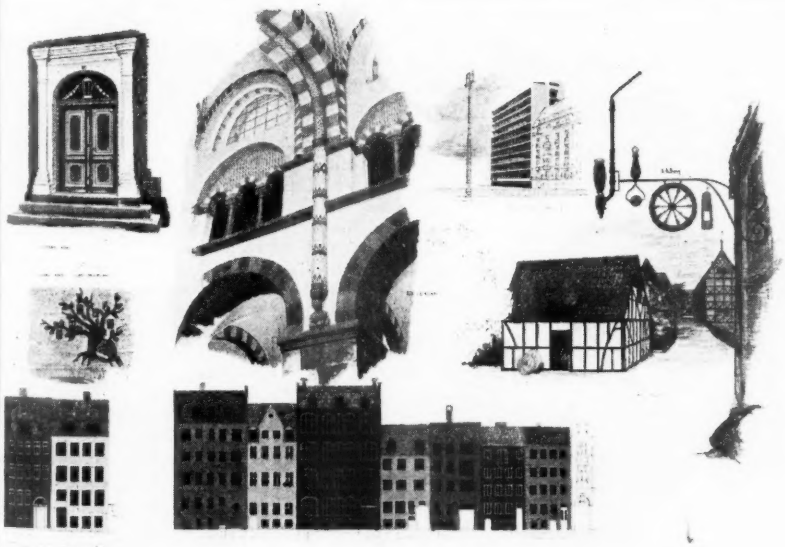
This year's entry of drawings was numerically good and of a high level throughout.

Finally I come to the post-graduate prizes, where criticism is not required, but I will content myself with announcing the Jury's awards.

First the **Alfred Bossom Research Fellowship** 1953–54. The combined entry of Mr. John Stillman and Mr. John Eastwick-Field was awarded a Fellowship, value £250, to enable them to complete their book on Joinery. Good luck to this project.

The **R.I.B.A. Rose Shipman Studentship** for the study of architecture of £200 goes to Major R. A. Jensen. Congratulations, Major Jensen.



The Owen Jones Studentship: A Certificate and £100. For the study of colour in architecture. Two drawings by the winner, Mr. J. R. Notman [*A*], Glasgow School of Architecture

Next comes the **Andrew N. Prentice Bequest**: a certificate and £150 for the study of Spanish architecture. This goes to Mr. J. E. D. Sanderson. I sincerely hope he enjoys his stay in Spain.

Unfortunately, the **Godwin and Wimperis Bursary** has not been awarded this year.

The **Henry Saxon Snell Prize and Theakston Bequest** for £125 goes to Mr. Warwick Smith.

The **Hunt Bursary** and £75 for the Study of Housing and Town Planning has been won by Mr. Lloyd Hughes.

To me one of the most attractive bursaries, The Henry L. Florence Bursary of £350 for the Study of Greek, Hellenistic and Byzantine Architecture of the Mediterranean Basin, has not been awarded this year, but Mr. Richard Leacroft wins the **Athens Bursary** of £125 for study at the British School at Athens.

In many ways, I feel the competition for these ripe plums is not fierce enough. How I wish I were free to travel to Greece or Spain, or parts of the Mediterranean. This period only comes once before we get tied to our practices and, apart from the adventure of travel after the award has been made, the adventure of the chase during the competition stage is well worth enjoying for its own sake. I sincerely hope that next year there will be even stronger competition for the prizes, though this year has shown an improvement on last.

**Editor's Note:** *Mr. Spence's comments on several of the unplaced entries have been omitted from this report. We will send on request to any competitor who was unable*

*to be present at the criticism a copy of Mr. Spence's comments on his entry. Competitors should state the pseudonym they used as well as the competition.*

## VOTE OF THANKS

**Professor Robert Matthew,** C.B.E. [*A*] in moving a vote of thanks to the President for his Address and to Mr. Spence for his review, said: My task tonight is to let off a double barrelled round, a round of applause in two directions at once, one barrel for the President and the other for the critic, Mr. Basil Spence. It would be difficult to find in the whole architectural range a more entrancing and rewarding pair of targets.

The President has spoken, rightly so, about the illusion of leadership, especially in the schools, but as one of the humblest and least experienced of guides I would only say to the post-war generation that in fact if it had not been for the inspiration of Mr. Howard Robertson himself, in school and out, in the confusing days of the 30's when I was a young man and when there were few guiding lights on the horizon, many of us would have fallen by the way long ago; and if that is not leadership, I do not know what is.

The President's Address has gone right to the heart of the matter. That is an analysis of the practical solution to the problem. This is the soundest bit of advice that I have heard for a very long time.

I shall have great pleasure in quoting Robertson on solutions when I am next confronted by serried ranks of esquisses—a form of discipline which has never been totally abandoned in Edinburgh.

I trust that the warning bell of which the President has spoken so graphically will always sound in good time and that we shall avoid the ringing of the architectural Lutine signifying dire disaster.

The President's reference to the serial nature of architecture is intriguing to me. This endless serial has had its instalments of grandeur and sometimes of bathos, with an occasional injection of the comic strip, and if the present chapter is strictly in conformity with the end-of-war regulations the story is an exciting one, at any rate for its successive authors. The President is the editor-in-chief of the present serial number, and our only regret is that his benign blue pencil cannot continue to run over us all as we rough in the draft of tomorrow's architectural story.

You have been heard tonight, Mr. President, by a select audience, but you will be read by many more, and you are known to us all. On behalf of all students, I want to say that we are grateful to you not only for what you have said tonight but also for what you have done throughout your lifetime for the students of our generation.

I now turn to my second target, the critic, Mr. Basil Spence. I had the privilege of being at the Edinburgh School of Architecture with Mr. Spence, and I well remember his slim figure at the desk in front of me and the breath-taking sketches which came so easily from his pencil and brush, and they were the envy of us all.

What an ideal critic he is! He modestly says that he is the mouthpiece of the juries. I happened this year to be one of them, and at every point I can recognise his own touch in picking up their comments. I know that he spent very many hours round the drawings making his own assessment. I am sure that as he looked at these solutions, some of them extraordinarily good, he must have had a nostalgic moment or two as he remembered some of the 'ripe plums' falling one after the other into his own hands.

If today's instalment of the architectural serial is an austere one, Basil Spence's own contribution is irrepressible, gay and exuberant. The dim religious light which has for so long almost obscured certain aspects of our national architecture has suddenly under his hand become transformed into scintillating brilliance.

Mr. Spence has spoken about the inevitable days of practice. I must confess that I never thought of Basil Spence as particularly static in any sense whatever, and we are lucky indeed to have him as critic this year. I believe he arrived home from Canada only the day before the drawings were adjudicated. In fact, he gets about so much that we do not see very much of him in his own native country. But that, I am afraid, is our loss and not his. We must be grateful indeed that he has given us his time and his very rich judgment in such good measure tonight.

I have loaded both barrels and I am about to press the trigger, and in doing so, I propose a rousing vote of thanks first to the President for the wisdom of his Address and then to the critic for his penetrating and very genial survey.

**Mr. Harold Conolly** [*F*], in seconding the vote of thanks: Seconding a vote of thanks which Robert Matthew has proposed is about as rewarding as gilding the proverbial lily, because Robert Matthew does this sort of thing so well, as indeed he does most things so well.

I was rather sad when I heard the President say that this would be the last occasion of this kind on which he would address us. It took my mind back rather more years than Robert Matthew to when I was a young man in Leeds and the annual lecture by Howard Robertson was the architectural high-spot of the year. To me as a young man he was almost as a god descended from Mount Olympus and a man whom I worshipped from afar. Now, of course, I am much older and I have the privilege of knowing him personally, but I have not changed that juvenile opinion and I still hold him in the very highest regard. The only alteration I would make is to substitute for the word 'god' the initials 'V.I.P.'—a Venerated Institute President.

I was a little depressed by his remarks about the way we are going, if we are going anywhere. I wondered why there should be this pessimism from a man who wrote a well known series of books about architecture and its future. But I think that this pessimism is not a bad thing. In any case, it is a useful corrective to the optimism of a Minister of Works who thinks it can be done by committees or merely by the issue of licences. That is not the way to produce good architecture. We all know that you cannot produce a new style of architecture just by taking thought or by an exercise of will. You cannot conjure it out of a hat like a conjuror.

So it is not a bad thing, particularly when you are at school, to concentrate on a modern and up-to-date solution to your client's problem in terms of three dimensions. As a member of a visiting board, I have been struck in a number of schools by the way many students have achieved a Corb-like elevation without taking due thought for the plan, so that the garbage from the kitchen must go through the restaurant and you cannot find the boiler chimney anywhere. It is a good thing to concentrate on practical solutions, even if it is not producing good architecture.

As for Basil Spence, we all listened with rapture to his extremely sympathetic and sincere criticism of the winning and other drawings. He has obviously given a lot of time and real deep thought to it, and we are all grateful. Those whom he has praised may well be content. Those whom he has criticised may also be content. He has treated their designs with imagination in his criticism. He has stimulated them, I hope, to try again.

Might I, as a man now in my fifties, say how much I should like to have 'Tite Prize-winner so-and-so' and 'Soane Prize-winner so-and-so' after my name. In years to come when you are 'John Smith, 2 Brick Villas' or 'John Smith, c/o the Borough Engineer, Surbiton-on-Sea' it will be jolly nice to have a certificate or medal from the Royal Institute. As Basil Spence said, it is a pity that some of the 'big plums' are not being sought after more eagerly.

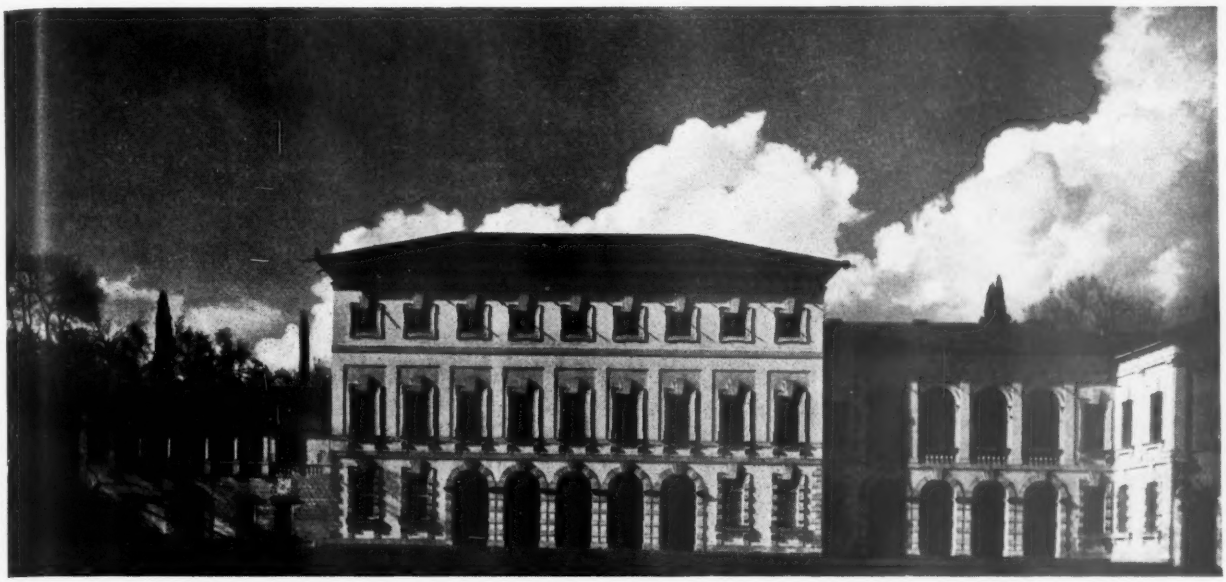
I have very great pleasure in seconding the vote of thanks.

**The President:** With Basil Spence and myself it is a case of Colonel Up and Mr. Down. I am Mr. Down. Basil Spence will say his piece in a moment.

We are both greatly touched by the words of appreciation which have been so beautifully delivered. I did not realise that we had two such accomplished orators in the proposer and seconder of the motion, and they both disclaimed all preparation. For my part, I can only say what great pleasure it has been to hear those words and what pleasure I have gained from Basil Spence's criticism. I have never heard a better criticism in my life. Thank you very much, ladies and gentlemen.

**Mr. Basil Spence,** in reply: Thank you very much for your kind words. I appreciate them very much indeed. I thoroughly enjoyed doing this criticism. It is nice work. You meet nice people and you see lovely drawings. It has been a great joy to me.

I must also thank Mr. Howard Lobb for his very kind message last year—it did not come amiss—and I wish the new critic, Mr. Raymond Erith, the very best of luck, and may he have as enjoyable a time as I had.



Villa Perez Pompei, Illasi, near Verona

# Venetian Villas

## R.I.B.A. Exhibition of Photographs

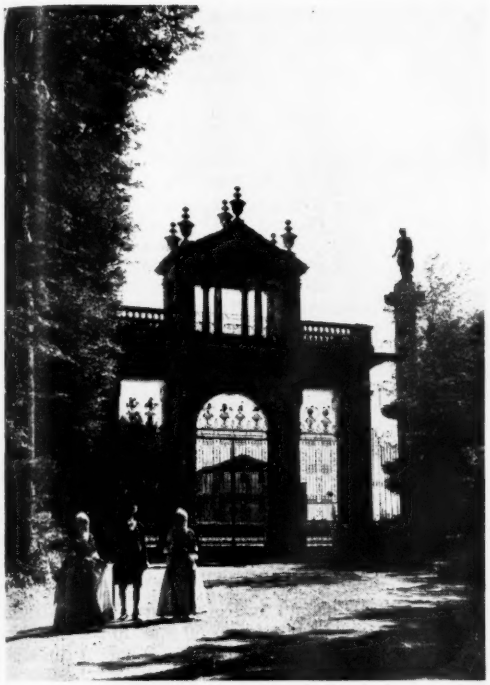
We reproduce here some of the magnificent photographs of Venetian villas from the R.I.B.A. spring exhibition which is on view in the Henry Florence Hall from 25 February to 27 March. The exhibition, which was opened by H.E. the Italian Ambassador, was prepared by a special committee in Italy and has already been shown at Treviso, Milan and Rome. It will probably be on view at other centres in Great Britain after the R.I.B.A. showing.

The exhibition covers villas ranging in period from early Venetian Gothic to the Neo-Classicism of the Napoleonic era. The examples are drawn from eight regions which make up the province of Venezia and include the work of many famous Italian architects, including Palladio.

The exhibition will be open daily from 10 a.m. to 7 p.m. (Saturdays 5 p.m.). A free catalogue is available.

Left: Courtyard of the Villa Garzoni, Cardiana, near Padua.
Above: Loggia in the Villa Manin Passariano, near Udine

Top left: Villa Giovanelli, near Padua. Middle left: Villa Mosconi, Negrar-Novare, near Verona. Bottom left: Villa Sella (one-time Ridolfi Cossali), Castelnuovo, near Verona. Above: Villa la Malcontenta, Mira, near Mestre. Below: Villa Pignatti Morano de Custoza, Sommacampagna-Custoza, near Verona



Above: Villa Pisani-Cancello, near Stra. Top right: Villa Acquistapace, now Dettoni, S. Pietro in Cariano, near Verona. Middle right: Villa S. Sofia, Pedemonte, S. Pietro in Cariano. Bottom right: Villa Bertoldi, Negrar, near Verona. Bottom left: gateway at Villa del Bene, Dolcè-Volargne, near Verona

Hose streams reached 50 to 75 ft. into the 866-ft. wide building. Photo: *Planet-News*

# The General Motors Fire, Livonia, U.S.A.

*Editor's Note: The story of this fire is of interest to British architects, not primarily because it is the largest industrial fire yet recorded, but because it conveys important lessons on the construction of large engineering shops. Buildings of this construction and occupancy are not normally considered to be severe fire risks. Yet the factory was totally destroyed in spite of the fact that the outbreak of fire was in working hours and observed.*

*We are indebted to the Fire Protection Association for permission to print the following extracts from an account of the fire published in their Journal of January* 1954 *and for the loan of the photographs, and to the National Fire Protection Association of the U.S.A. who provided both information and photographs in the first place.*

ON THE 12 August 1953 the largest recorded industrial fire loss occurred at the Hydra-Matic Automobile transmission plant of the General Motors Corporation at Livonia, Michigan. Preliminary estimates placed the amount of the damage to property at 50–55 million dollars. Moreover, as this was the only plant making Hydra-Matic transmissions for many of the larger American car manufacturers the consequential loss was expected to be very substantial. Six people died during and as a result of the fire.

**The Building and Occupancy.** A building with an area of 1,502,500 sq. ft. (approximately 34½ acres) was involved. It was a single-storey building except for a two-storey office section at the south end and a two-storey section on the east side. Except for the most easterly and most westerly bays, which were 28 ft. high, the height throughout the building from floor to roof was 21 ft., and to the roof trusses 15 ft. Throughout the entire building there was no effective fire separation.

The chief feature of the construction was the flat roof consisting of a steel deck covered on the outside with several layers of 'tar paper', a layer of ¾-in. fibreglass covered with several more layers of 'tar paper', and a top layer of gravel, all bound together by asphalt. There were over 3 lb. of tar and asphalt per square foot or more than 2,000 tons altogether. The roof was continuous and no means were provided for venting a fire. Unprotected steel trusses carried on unprotected steel columns at 40-ft. and 48-ft. centres supported the roof. The external walls were brick with large areas of glazing in steel frames and the floors were concrete slabs covered with 2-in. wood blocks.

The Hydra-Matic Transmission Division occupied about nine-tenths of the building and the remainder was occupied by the Ternstedt Division, which manufactured range finders in one corner of the building separated from the other Division by a 15 ft. high hollow concrete block wall for part of the boundary and a steel mesh fence about 12 ft. high with the lower 5 ft. covered with sheet metal plate along the remaining part of the boundary.

**Contents and Processes.** The building contained over 3,000 metal working machines which, although themselves non-combustible, in many instances contained lubricating, cooling and cutting oils. Heat treatment departments at various points in the factory contained small oil quench tanks. An oily condensation tended to accumulate on the underside of the roof, on structural members and elsewhere as the result of the heat treatment process. There were three 400-gallon wash tanks and a similar number of 450-gallon dip tanks of rust inhibitor with a flash point of 97·7° F. In addition there were drums of flammable liquids distributed throughout the factory. The amount of flammable liquids in machines and drums totalled several thousand gallons.

**Water Supplies and Fire Fighting Equipment Provided.** Not more than 20 per cent of the factory was protected by automatic sprinklers, protection being confined mainly to loading and unloading areas.

Water for the factory was supplied at a pressure of 55 lb./sq. in. through a 10-in. metered connection from a 12-in. looped city main. Two electric pumps raised the water to a 200,000 gallons gravity tank and from there it flowed through two mains, one a 6-in. main for domestic use, and the other a 10-in. fire service looped main which supplied the sprinkler systems, standpipes and 20 yard hydrants. The tank connections were arranged so that 100,000 gallons of water were reserved for fire fighting.

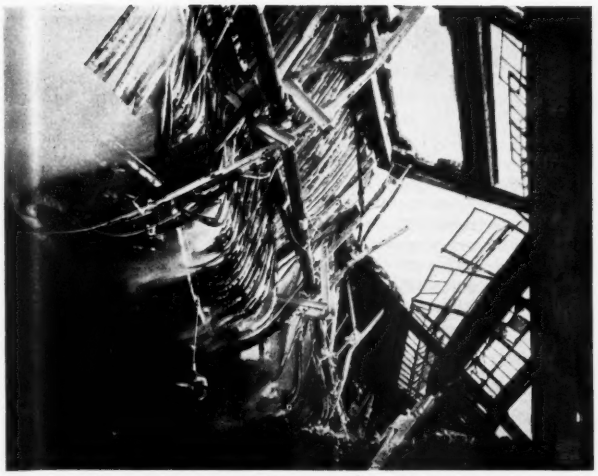
Other equipment included several standpipes with 1½-in. hose attached, several 20-lb. carbon dioxide extinguishers, three 150-lb. dry powder extinguishers and several manual and at least two automatic carbon dioxide extinguishing systems protecting equipment containing flammable liquids.

Both the Transmission and Ternstedt Divisions maintained works fire brigades and the Ternstedt Division an alarm system.

**Origin and Cause of the Fire.** The fire began some time before 3.50 p.m. in a metal drip pan extending from a 450-gallon dip tank in the Transmission Division of the factory at a point approximately 100 ft. north of the office section and adjacent to the hollow concrete block boundary wall between the two Divisions. The drip pan was U-shaped, 120 ft. long and 2 ft. wide with a 2-in. lip on either side. For most of its length it was 10 ft. 8 in. above the floor beneath a long mono-rail conveyor which carried metal parts from the dip tank. The conveyor was operating when the fire broke out and the drip pan contained flammable liquid.

Four employees of an outside contractor were cutting and welding a steam pipe installed adjacent to the concrete block wall, about 30 in. beneath the roof directly above the drip pan. Sparks from an oxy-acetylene cutting torch ignited deposit in the drip pan and started the fire. When the fire was discovered two of these men were cutting the pipe with an oxy-acetylene torch while one was holding the ladder and the fourth was stationed 15 ft. away with a 20-lb. carbon dioxide extinguisher. It is claimed that a tarpaulin was spread beneath the cutting operation.

**Spread of the Fire and Fire Fighting.** An automatic carbon dioxide system was installed on the dip tank near the point of origin of the fire but the drip pan was unprotected. There were no sprinklers within several hundred feet. The fire was immediately attacked with two carbon dioxide extinguishers from a ladder belonging to the welding crew. The conveyor had been stopped and the fire was being controlled and apparently was almost extinguished when the extinguishers were emptied. Then the whole length of the drip pan became involved. Other carbon dioxide extinguishers, three 150-lb. dry chemical extinguishers and a 1½-in. hose line were brought into action. However, owing to the



Before it collapsed, the heated 18-gauge steel roof deck dripped melted tar and asphalt, adding fuel to the fire

The collapsed 120 ft.-long drip pan, under a conveyor, in which the fire started, and the dip tank to which the drip pan connected

location of the fire overhead, all that could be done was to prevent it from spreading down the slopes of the drip pan into the dip tank.

Ventilation fans which were working carried heat and smoke to other parts of the factory. The drip pan warped and spilled its burning contents on the floor and at about the same time oily condensation on steel roof members ignited.

It was not long before hot tar and asphalt, flowing through cracks between sections of the heat-warped roof deck, ignited and started fires on machinery, in inflammable liquid containers and on the wood floor.

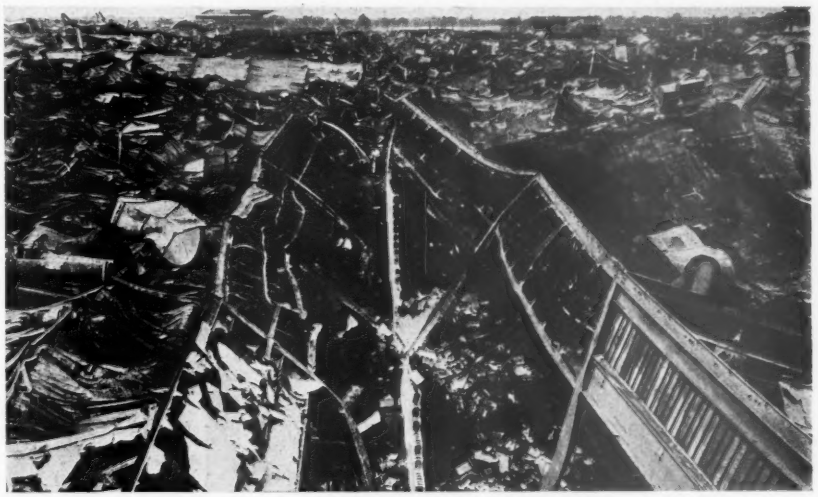
Little information is available on how or when the 4,200 employees were warned to leave the building. However, evacuation is thought to have been reasonably prompt and casualties were for the most part confined to those who remained to fight the fire, many of whom were burned by hot tar and asphalt. Three, including the chief of the Ternstedt Division fire brigade, were trapped and killed.

The Livonia Fire Department was called by an employee on the telephone at 3.56 p.m., at least 6 minutes after the discovery of the fire; the delay may have been as much as 20 minutes.

Fire brigades from Livonia and from seven other towns attended the fire. On their arrival the Livonia Fire Department found a large part of the factory in flames. Entry into the building was found to be impossible as part of the roof in the centre had collapsed, parts of the external walls were distorted and the building was full of dense black smoke. The width of the building, 866 ft., was a serious obstacle; hose jets could penetrate only 50 to 75 ft., and had little effect. The fire, spreading unhampered beneath the roof, caused it to collapse, showering the interior with burning tar and asphalt.

When heat reached sprinklered areas many sprinkler heads opened, but owing to the intensity of the fire the discharge was ineffective. Collapse of sections of the roof carried away the sprinkler piping. To conserve water, the fire brigade therefore shut off the supply to the installation.

The fire finally burned itself out the next day.



The roof and remains of the concrete block wall between the two divisions. Photographs on this page lent by the Livonia Fire Department

**Lessons of the Fire.** A number of factors combined to cause this huge loss, chief of which were the vast area devoid of any fire separation, the combustible nature of the roof and incomplete automatic sprinkler protection. Another constructional feature which should have received attention was the unprotected steelwork. Steps should also have been taken to prevent the accumulation on the roof and its supporting members of the oily deposit from the heat treatment departments.

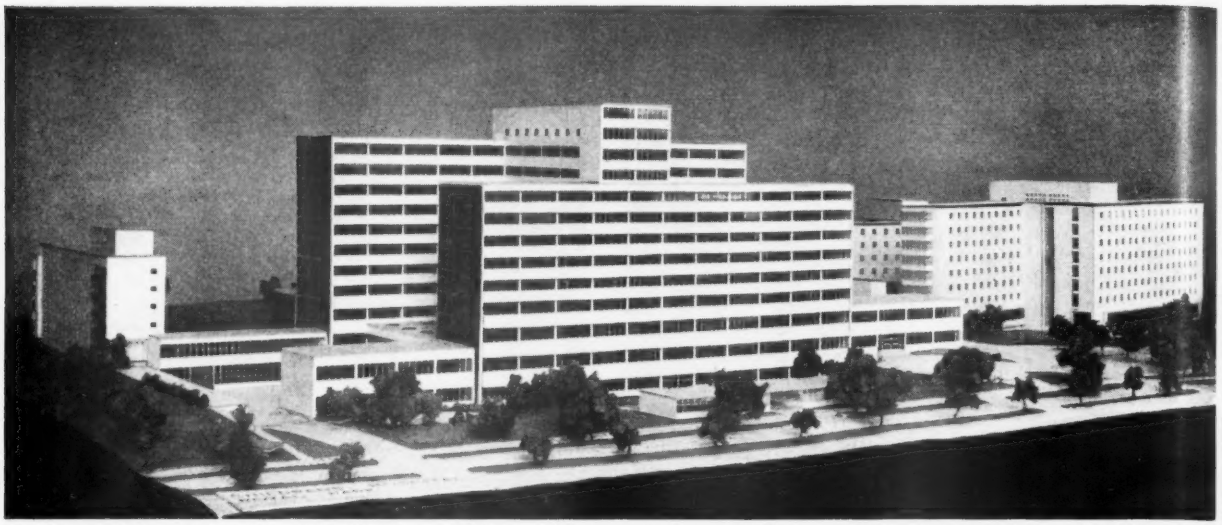
Although precautions were taken by the cutting and welding crew they were not adequate. They should not have been permitted to use oxy-acetylene equipment under such dangerous conditions.

The failure to provide any fixed fire extinguishing system on the drip pan was a serious oversight.

Delay in summoning the fire brigade was probably partly responsible for the heavy loss.

As present-day mass production methods lead to increasing demands for ever larger factories it is hoped that industry will appreciate the lessons of this fire. The cubic capacity of undivided areas should be reduced as much as possible by erecting fire separating walls. Where it is essential to have compartments with extensive floor areas it is imperative that the construction should at least be non-combustible if it cannot be fire resisting.

Automatic sprinkler installations may be of little value if some areas of a building are unprotected by sprinkler heads. A fire starting in an unprotected area may reach such proportions when it spreads to a protected area that it is beyond the control of the sprinklers. Automatic sprinklers are intended to deal with fires at their inception.



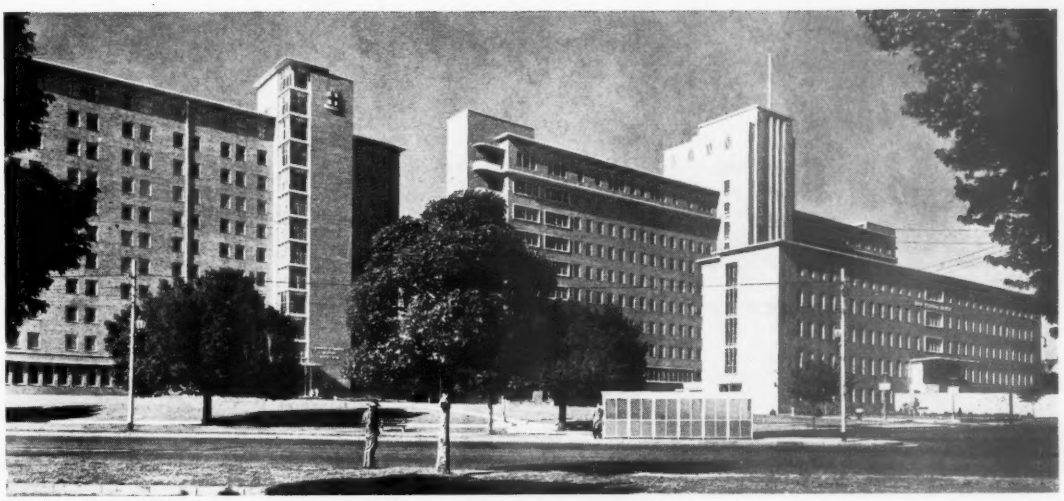
The Royal Children's Hospital and Health Centre, Melbourne. Photograph of model. The preventive treatment and research building in the front block, college of nurses and quarters for nurses and resident doctors on the right. The hospital is to contain 350 beds

# The Work of the Royal Gold Medallist 1954

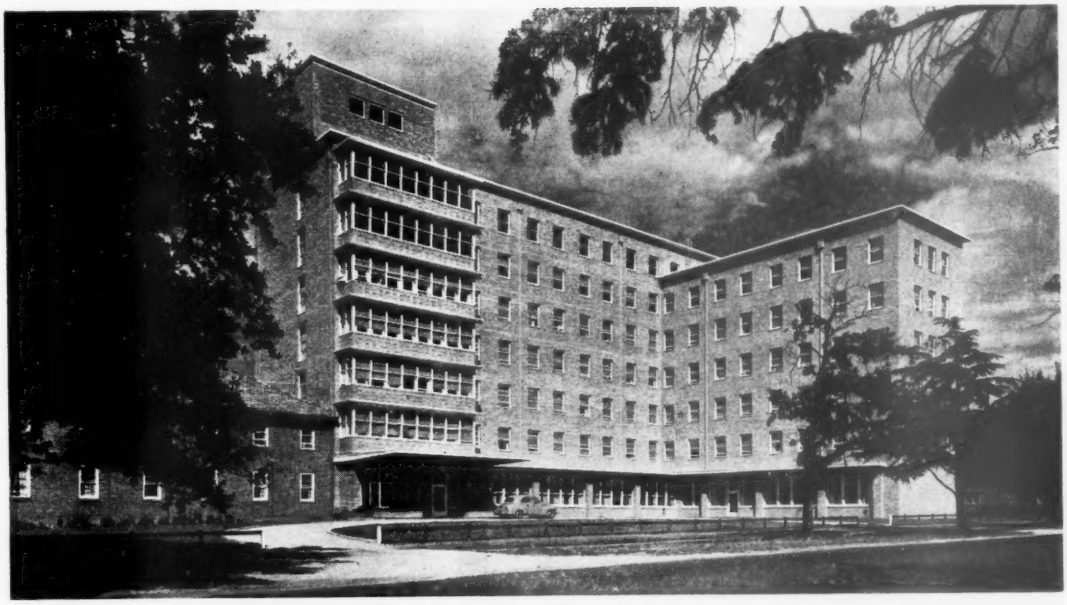
On these pages we illustrate some of the work of Arthur George Stephenson, C.M.G., M.C., A.M.T.P.I. [*F*], this year's Royal Gold Medallist. Mr. Stephenson is the head of Stephenson and Turner of Melbourne and the buildings illustrated form a general cross section of the work for which he has been responsible. He says it is not a complete record because many city and industrial buildings have not been photographed; nor does it cover his work on ship design and the many special buffet and other cars for long-distance railway travel. Among his exhibition buildings, commissioned by the Australian Government, that for the New York World Fair is perhaps the most important but, again, there are no good photographs of this.

The E.S. & A. Bank Ltd. building, Collins Street, Melbourne

The King George V Memorial Hospital for Mothers and Babies, Sydney. 1940. The main entrance

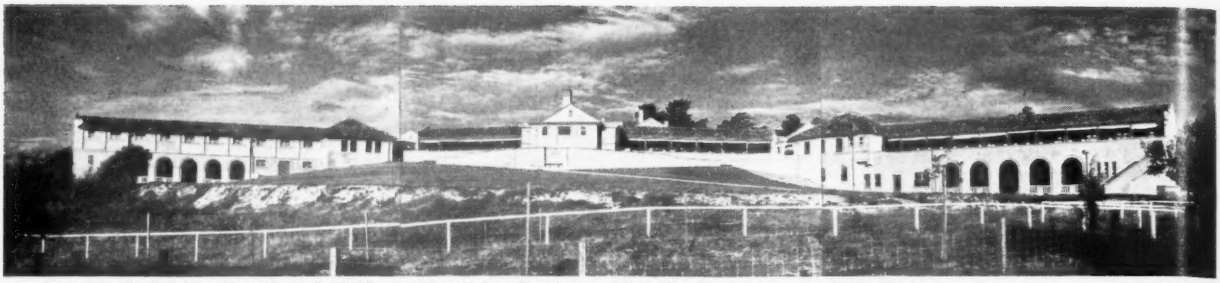


The Royal Melbourne Hospital



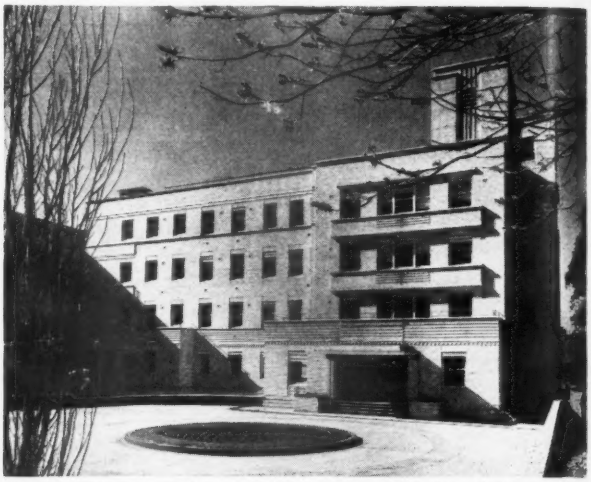
Ballarat and District Base Hospital, Victoria. 1935. The nurses' home

General Military Hospital, Yaralla, Sydney. 1941



The Orthopaedic Section of the Royal Childrens' Hospital at Frankston, Victoria. 1927. Accommodates 100 beds

General Military Hospital, Yaralla, Sydney. 1941. Nurses' home for 150 nurses



Gloucester House, Sydney. A private section of the Royal Prince Alfred Teaching Hospital. 1936. Accommodates 130 beds


The Australian Pavilion at the New Zealand Exhibition 1940

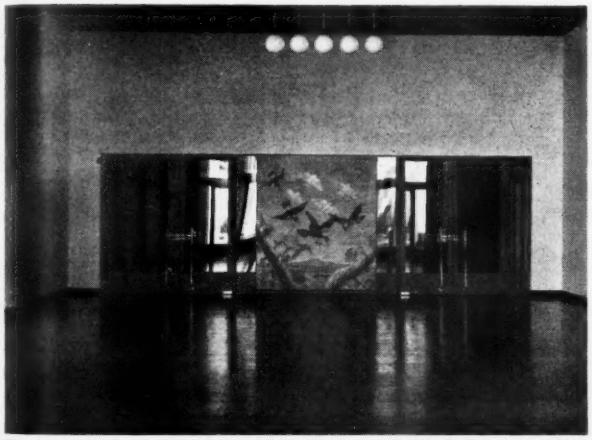
Raymond Terrace Hospital, N.S.W. 1946. Nurses' home

The Darwin Hotel, Northern Territory. 1939. The courtyard

H.V. McKay Massey Harris Factory, Sydney. 1937. The office block

Dental Hospital, Sydney. 1941. The main operative floor

The Australia Hotel, Sydney. The 'Starlight' banqueting hall. 1953



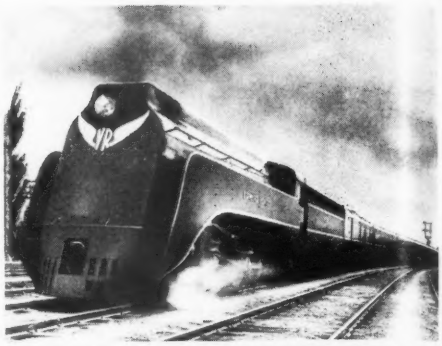
The New Zealand Exhibition 1940. Entrance hall of the Australian pavilion

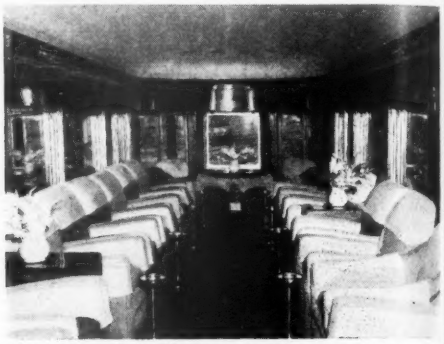
Melbourne Town Hall. Rebuilt after a fire in 1927. The side entrance hall

Special operating theatre in King George V Memorial Hospital for Mothers and Babies, Sydney. 1940

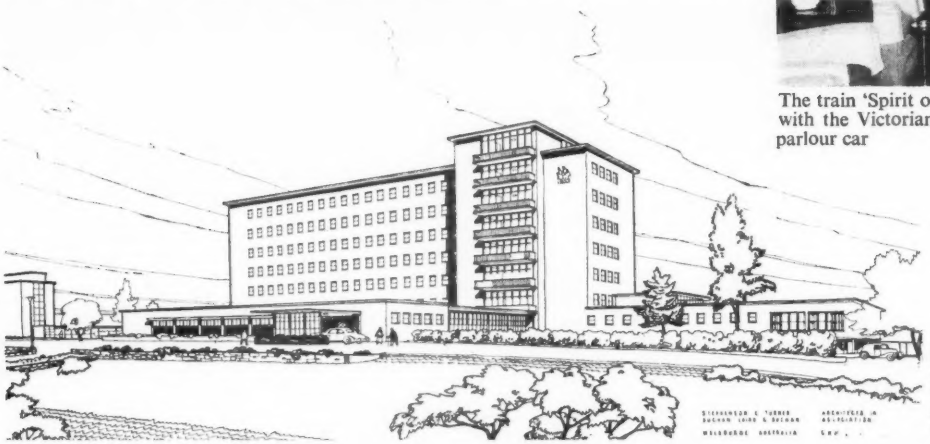
Victorian Government Tourist Bureau, Melbourne. 1941

Detail of the E.S. & A. Bank Ltd., Collins Street, Melbourne



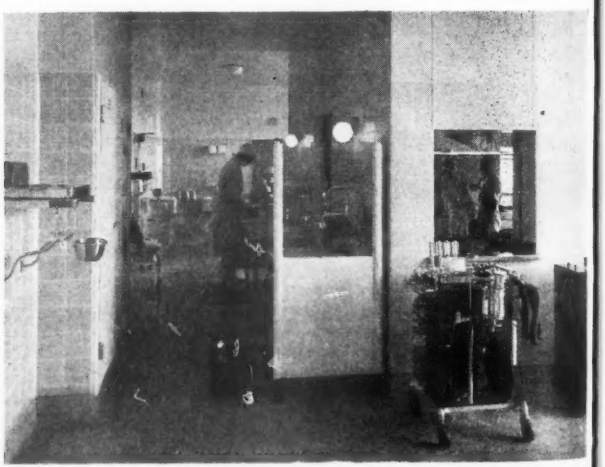


The train 'Spirit of Progress' designed in conjunction with the Victorian State Railways, 1939. Below, the parlour car



Geelong Old Folks' Home. The main hospital building showing the second stage of development. In association with Buchan, Laird and Buchan

General Military Hospital, Yaralla, N.S.W. 1941. A typical 24-bed ward in the main block



St. Vincent's Hospital, Sydney, N.S.W. 1942. Doctors' scrub-up in operating theatre

# Economy in Building

## By H. F. Broughton

### A Science Lecture at the R.I.B.A. on 19 January 1954*

C. H. Aslin, C.B.E., Vice-President, in the Chair

ACCORDING TO the dictionary the meaning of the word 'economy' is the 'judicious expenditure of money', or the 'careful management of labour, time and money' and this is the keynote of my talk. Economy in building does not necessarily mean austerity. True economy is the provision, at the lowest possible cost, of accommodation and services which will allow the building to fulfil its function adequately over a predetermined period with the minimum of maintenance. Today the cost of building is high and we are often told that the industry runs the risk of pricing itself out of business. It is obviously, therefore, the prime duty of all those concerned with design, construction and research to reduce costs, and this can be done without endangering the strength and stability of the structure, without lowering the aesthetic quality of the design and without reducing the comfort of the finished product.

The search for possible savings should start from the early planning stage; from the initial conception of the project, whether it be a power station, a factory, a block of flats or a housing development. Actually it should start earlier, even with the building owner. A 'cheap site', a site purchased without a real knowledge of actual requirements, can result in a costly final product. I will not, however, extend our range as we already have a wide enough field to cover. Assuming, therefore, the normal circumstances, the building owner already has the site and he requires a building or buildings to serve a specific function. Within these conditions the architect has, to all intents and purposes, a free hand. It is at this stage that the search for where to economise must begin. I use the word 'search' with a purpose. A close investigation at this initial stage, involving as it should an examination and cost comparison of all reasonable alternatives, will pay handsome dividends not only in money but in building time.

**Design.** We are prone to blame the contractor for high cost, for poor organisation, for delayed completions, but this is not by any means the whole story. While, obviously, good planning (functional planning and due regard to aesthetics) is the basic function of the architect, consideration for the builder's problems in implementing the design and carrying out the work will operate as an incentive, encourage good organisation and speedier work and therefore result in lower costs. There are some of us who think that the architect should not only specify the form of construction and the materials but also play a more direct part in determining the methods to be used. The opponents of this idea say the builder knows what is the cheapest method —leave it to him. This may of course be quite true where the work is of a traditional or conventional form. Where an architect or his consulting engineer uses a new or non-conventional form of construction he will have considered ways and means of constructing it, the organisation of the construction and the type of plant, mechanical or otherwise, which could be most efficiently used. In fact the design of his structure may well have been influenced by the particular method of building. It is obvious therefore that the method of construction which the designer has in mind should at the very least be considered by the contractor who eventually carries out the work.

The ideal method of course would be to bring the contractor in at the design stage, but under our present methods of competitive tendering this is not normally possible. As you know, the London County Council are experimenting with a design team of which a nominated contractor is a member from the very earliest planning stage. The purpose of the experiment is to find the cheapest and speediest method of building multi-storey flats. Every aspect of construction, of equipment, of services and of finishings is being considered in detail and each member of the team will bring his expert knowledge to bear on every problem so that the result should be the most efficient and economic building that it is possible to design and construct.

The team consists of the architect, the engineer, the contractor, the quantity surveyor, the cost estimator and research workers. Now the services of all these people, with the exception of the contractor, are available in some form to any designer—to any architect—and much expert advice is already available to him. The unusual feature of this project is the bringing together of all concerned as a design team from the beginning. We look forward therefore to the result of the London County Council experiment with interest, as it may well establish the method by which the contractor can best be brought into the earliest stages of a project.

So much for this particular experiment: let us return to what the architect can do in present conditions to create and encourage economy. Let us look for a moment at the work of the Ministry of Education development group. There is little doubt that this group has done much to develop economy in the design and construction of school buildings. One important method of achieving this is by 'cost study' as set out in Building Bulletin No. 4. This study divides itself into two parts. First, *cost analysis* which aims at examining the cost of schools already planned and built and for which priced bills of quantities are available and second, *cost planning* which uses the knowledge gained by cost analysis to control the design of future schools.

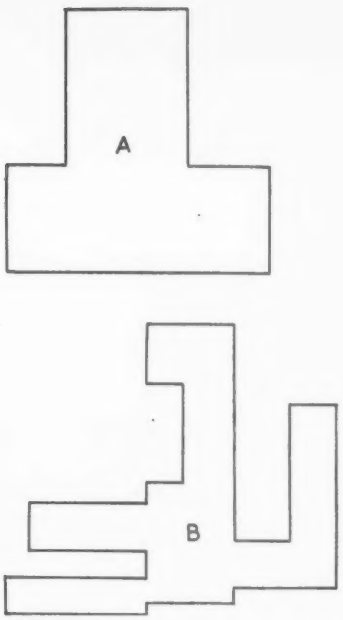


Fig. 1

Every architect can do what this group has done: not in such a wide field, perhaps, but within his own field. He can have available cost data of the work he has done, as a basis for the comparison of the costs of different forms of construction, of different types of equipment and services and different qualities of finishes, and use the knowledge so gained in his future planning.

One more word on the Ministry of Education Bulletin. On pages 12 and 13 there is an appendix in which the effect of plan shape on cost is discussed. It is concerned with the extent of external wall area and its cost in relation to the floor area which the walls enclose (Fig. 1). Both plan areas are 10,000 sq. ft., but the area of enclosing walls on Plan A is 11,000 sq. ft. while that of Plan B is 12,000 sq. ft.; a saving of 1,000 ft. of walling. On a straight price difference we could expect a saving of, say, £350 to £400, but there are other factors which affect cost—look at the number of external and internal angles on Plan B and compare them with those on Plan A. Any contractor will tell you that angles and breaks in walling are costly. You may well say that every architect is aware of and acts upon such a first principle of economic design, but there are innumerable examples where this is not so. Recently I had occasion to examine two plans for blocks of multi-storey flats. One plan (Fig. 2A) had three flats per floor and the other (Fig. 2B) had four flats per floor. The floor areas of all flats were approximately the same, and

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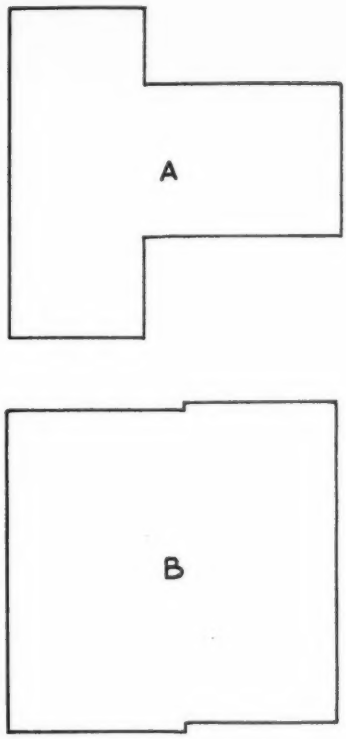


Fig. 2

the accommodation was similar. But the one plan had 268 sq. yd. of external walling to encompass three flats while the other four flats required only 240 sq. yd. of external walling. The relative area of walling per flat was—Plan A, 89 sq. yd.; Plan B, 60 sq. yd., and the saving in money was approximately £66 per flat, or over £1,000 per block.

**The Architect and the Building Programme.** I suggested earlier that architects might well consider the advantages of taking a direct interest in the planning of the work. For instance they might call, under the terms of the contract, for a complete programme of all operations and stages of the work. This is not a new idea—time always used to be the essence of any contract. The architect should award a contract not only on the basis of price, but also on the basis of completion time. It was a contractual obligation with some Ministries during the war for the successful tenderer to submit a detailed programme of the work to show how he proposed to implement the time factor which he had stated in his tender and upon which he had been awarded the contract. This was a wonderful incentive to planning and it brought the architect and the contractor much closer together. They became a team. A detailed programme, prepared by the contractor, discussed jointly by him and the architect, possibly amended to suit the requirements of both, became in most instances a vital document. The contractor saw that his efficiency or lack of it could be actually measured and not guessed at, and the architect immediately realised that he would have to make changes, or specify alternative materials to avoid the responsibility of keeping the contractor waiting. It is worth trying, and I am certain that most contractors would welcome the idea. It is, however, important that the programme is a real one and not just a mere pictorial time-table. Against each operation must be set not only the time factor for each operation but also the number and types of operatives, the quantities and types of materials, and the static and mechanical plant required to implement the time factor. The mere act of planning in such detail (and it is quite simple) emphasises the need to phase operations accurately one with another. It forces the careful planning of material placing and it also assists in establishing rational bonus targets.

Fig. 3 provides a typical example of a programme for a small housing project. It is, of course, very often argued that it is not worth while spending time on formulating a programme when it is 'certain to break down during the first week'. Of course, a programme may break down—not necessarily the first week—but if properly detailed you will find that the contractor will do his utmost to get back on to his programme in the shortest possible time. It will become a point of honour with him, particularly if the architect has a copy of the programme and is progressing the work against it every time he visits the job. It is often asserted too that material shortages make programming impossible and that the preparation of the programme itself requires considerable time and skill. I do not myself agree with this view and I have had experience of the successful application of a comprehensive programme on several jobs recently. The influence of such a target on all those concerned with the control of the work is remarkable and has to be experienced to be believed.

Before I leave the design stage there are two more matters in the architect's field in which he can influence economy and speed of building. The first is mainly concerned with small house-building. It is almost common practice for all work below damp-proof course to be treated as provisional. This is understandable, but why not design foundations to suit the site rather than leave it to the clerk of works to settle floor levels and the other details such as steps, path levels, etc., which are consequent upon his decision. On level sites the problem is perhaps not a serious one, but unfortunately a substantial proportion of our housing sites are on falling ground and the time spent on proper detailing before the work starts will be amply repaid in a saving of money and time. With any other type of building except small housing the architect would certainly provide full details for the underbuilding. On a falling site it is not merely a question of deciding the number of courses below damp course level. There is much more to it than that. So much, in fact, that single houses, pairs or terraces, cannot be considered in isolation. The site must be considered as a whole. Floor levels should not be decided without taking into account their effect on the amount of cut and fill, the quantity of hardcore, the number of steps to doorways, the making up of finished ground levels, the need for embankments, for retaining walls, the drainage of pavings and last but not least the effect on soil and storm water drain levels. An *ad hoc* decision on floor levels which appears to involve only a few courses of brickwork more or less can result in additional expenditure on these other items, out of all proportion to the relatively small amount involved in the cost of brickwork. Every pair or terrace of houses should have its foundations detailed and where there is any doubt on the score of economy alternative sketch designs should be prepared and rough comparative bills taken off. I know that some architects already follow this practice and get a great deal of satisfaction from doing so, but many, perhaps the majority of architects, do not do so when they are dealing with housing.

Here then is an immediate way of promoting economy. We cannot place the responsibility on the already overworked clerk of works—too much money is involved.

Another matter that I wish to touch on is the question of nominated sub-contractors. In certain classes of work and with certain types of equipment and services it is of course important for the architect to nominate a sub-contractor. In housing, however, I think the recommendation of the Bailey Committee (Quicker Completion of House Interiors) on this question is pertinent, namely that the nomination of such sub-contractors should be avoided as much as possible. House-builders on the whole prefer their own sub-contractors. The relationship between a nominated sub-contractor and a main contractor is not in general as close or effective as when the sub-contractor looks directly to the main contractor for instructions as well as payment. Furthermore, the close integration and phasing of the work carried out by sub-contractors with the main contractor's own work can be made more difficult to achieve.

I have suggested some ways in which the architect can contribute to economy in building. Summarised briefly, they mean that the designer should be fully cost conscious, go out of his way to appreciate all the problems of production and develop a partnership with the builder which is real rather than one which is formal. In other words, and as far as the conditions of building allow, design should be married to production as in all other industries, so that the final design may be an incentive to efficient organisation on the part of the builder.

**The Contractor.** Given an economic design, how should the contractor complement it with economic production? He must organise and plan. You will say, obviously he must organise and plan. But does he? How many builders plan a contract in the finest detail? Some of our more efficient

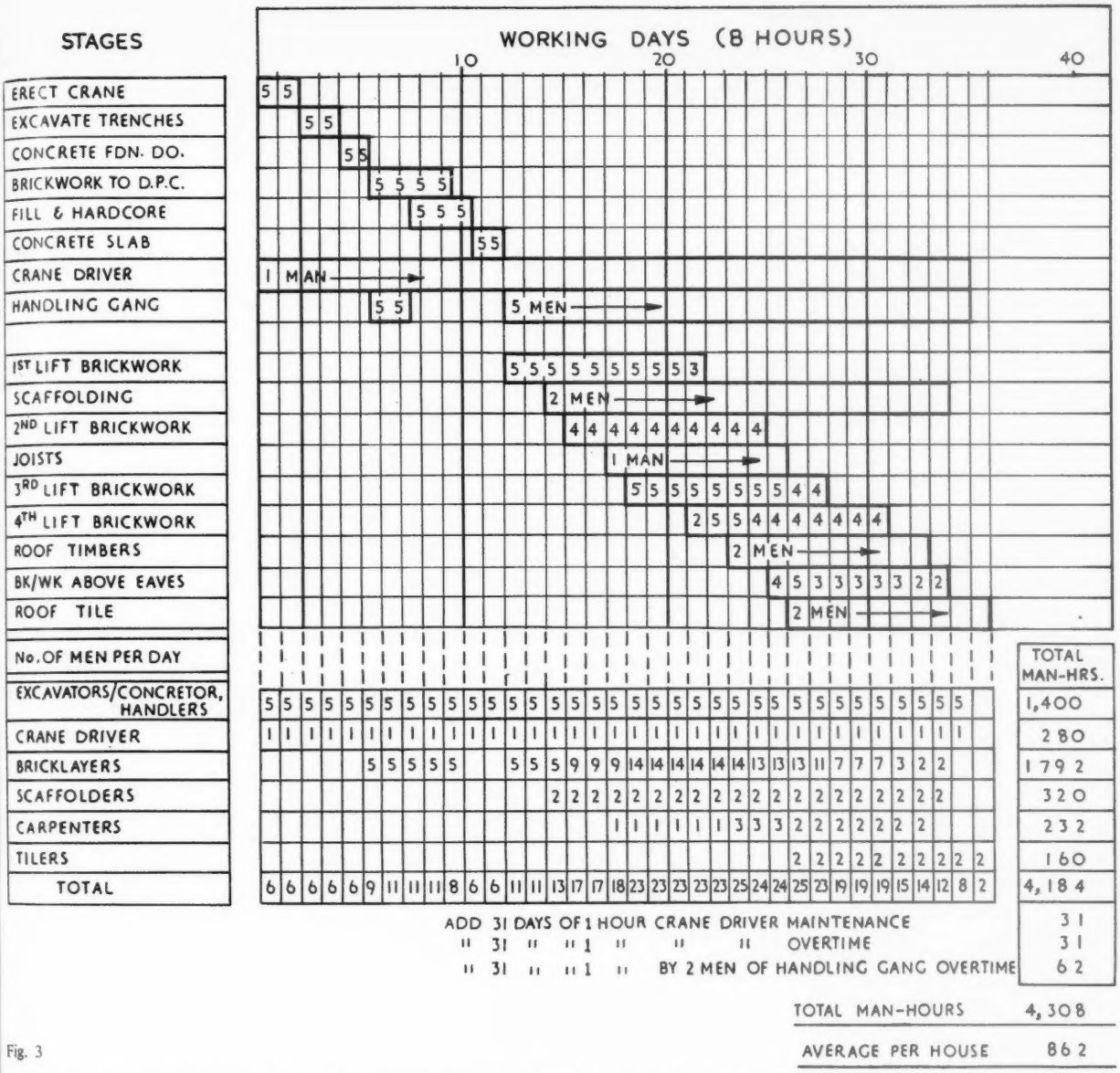



Fig. 3

contractors do plan in this way; they employ sufficient qualified staff to do this work. But this is by no means always the case. I was on a site the other day—a housing contract of over 80 houses involving £100,000—and the general foreman was working on the tools. The finest army in the world will lose battles and will lose men without good staff work. The days are behind us when a job will run itself. In a survey of productivity in house-building—the second report of which was recently published—man-hours per house varied from 1,565 to 4,645, and the reasons for this wide variation were not size of house or specification. They were not the size of the contract or its geographical location. These factors were responsible for small differences only. The greatest single factor responsible for this wide range of production was the quality and efficiency of organisation—mainly of site organisation.

Good site organisation—efficient site organisation—is a phrase that is now almost commonplace. What does it imply? It means, as has already been indicated, planning the whole of the work in the greatest detail before the job starts. It involves the provision of adequate staff to see that labour, materials and plant are available at the right times to ensure adherence to the plan. And lastly, no site organisation can be considered 'good' which does not include some method of cost control.

How does the builder achieve good site organisation? For every job, small or large, he should prepare a detailed programme before the work starts. This is the programme that the architect should see and approve. It will make clear to both builder and architect at this very early stage every facet of the job and the particular problems that are likely to arise. It will facilitate the accurate phasing of sequential operations, pin-point the key operations, establish the size of gangs and ensure the reduction of unproductive time to a minimum. It will emphasise material delivery dates. It will indicate to sub-contractors well in advance when their services will be required, and overall it will operate as an incentive to both staff and operatives throughout the period of the contract.

The functions of the site staff are the same on every job, irrespective of size.

First, the delivery of materials at the right time; the correct placing of these materials; their protection and the avoidance of waste. Second, the recruitment, organisation and supervision of labour, the recording of production and the payment of wages. Third, the provision of appropriate and sufficient plant and tools to do the work economically. On a small job the foreman, or even a charge hand if the job is small enough, will fulfil all these functions himself. On a large job the responsibility for the whole is still vested in one man, the chief site executive. He may be agent or general foreman, but it will be necessary for him to delegate responsibility to juniors, according to the size of the contract, the speed of the work and the number of men employed. All aspects of the work must however be covered. The productivity of the labour employed and therefore the economy of the whole job is directly related to the efficiency of the site staff.

The productivity of the labour employed —this surely, from the builder's point of view, is the whole crux of economy in building. How then does the builder obtain and maintain a high level of production from his operatives? Obviously he should provide adequate and efficient supervision since this helps to ensure that his programme is implemented, waste avoided, building time saved, the quality of the work maintained. But this supervision will be much more effective and economic if the right types of incentive are provided for the operatives, labour relations are good and adequate welfare facilities are provided.

In the second report on productivity in house-building, *NBS. Special Report No. 21*, it was shown that productivity was increased by the use of well-designed monetary incentive schemes in which rational targets are established for all operations.

It was found that in those contracts and trades where target bonus schemes had been applied, in which the bonus paid was directly related to output, the man-hours for similar work were on the average 15 per cent lower than where no such scheme operated. It was clear however that the majority of the schemes had weaknesses and there is little doubt that productivity would have been appreciably higher if they had been more thoroughly planned. In my opinion the basis of an efficient incentive scheme should be:—

(*a*) The scheme should be as comprehensive as possible and targets be applied to all operations.

(*b*) The target levels should be agreed between the operatives and employer before the commencement of the work. These targets should be properly balanced between trades to ensure equal opportunities for earning bonus to all operatives.

(*c*) The operations to which the agreed targets relate should be fully understood by all operatives and be easily identifiable so that progress at any given time can be visually assessed without resort to detailed measurement.

(*d*) Bonus should be paid *as soon as possible* after the execution of the work in which it has been earned and providing rational target levels have been set the operatives should be paid the greater proportion of the cash saving.

**Mechanical Plant.** The overall efficiency of a site can be dependent also on the use made of mechanical plant, but this is a subject which can only be dealt with fully in a separate talk. The potentialities of improving organisation and increasing production are enormous. The chief reason is of course that the use of a machine provides an organisational framework within which the operations can be more accurately pre-planned or programmed: the ability to adhere to a programme is greatly improved where mechanical plant is used. This is particularly the case where the machine does the whole of the handling operation, that is from stack or mixing point to placing point—as for example with a crane which conveys both horizontally and vertically. Where a handling operation is only partly mechanised, that is where the machine conveys only vertically and not horizontally, then the machine ceases to exercise effective control. A good example of this is the mechanical hoist which requires materials to be handled manually to its base and again manually distributed at scaffold level. In this case organisation of the work becomes more complex and the time cycle much more difficult to maintain.

Another good example of machines controlling production is in the mixing and placing of concrete at ground level. Where a power barrow or mobile skip is used to carry the complete batch from mixer to placing point the machines can be synchronised to work within a predetermined time cycle and thereby control the speed of the operation. A good combination for jobs of a moderate size is a 10/7 mixer working in conjunction with a power barrow with a 7 cu. ft. skip. With a gang of seven men and a three-minute time cycle this combination mixes and places at the rate of ¾ cu. yd. per man-hour compared with, shall we say, ¼ cu. yd. if transported manually.

The aim therefore in purchasing, and for that matter in designing, mechanical handling equipment should be to deal with the complete operation, which means either a machine which will both carry and lift or two machines which are of equal capacity and can be so synchronised in operation that they do, in fact, act as a single machine. The machine or machines then serve a dual function, they not only handle the materials and thereby lighten the work of the operatives, they also create a machine time cycle within which any ancillary manual operations are designed to take their part.

Before leaving the subject of plant I would like to refer briefly to what I may call static plant. I mean, of course, scaffolding, form-work, ladders, barrows and tools in general. I am afraid that on far too many jobs there is a shortage. The operatives have to make do, they have to improvise. On three jobs with which I have been concerned recently progress has been delayed by shortage of plant—mainly scaffolding. Sometimes this is unavoidable but there is a tendency—in fact there always has been a tendency—to try to carry out four contracts simultaneously with plant which is only really adequate for three. Today this is particularly misguided. Labour is too costly to allow it to be hampered by causes which can be avoided. Without good and adequate equipment and tools it is impossible to maintain high production and therefore to achieve economy.

**Cost Control.** Finally, I must mention cost control—probably one of the most important factors in the drive for economy and one which is all too infrequently applied. Cost control is part of good site organisation; it is a measure of production and to be effective need be concerned primarily only with labour and mechanical plant. It is a current measure of production—taken, say, twice a week—which enables the general foreman or agent to compare with his targets and to take immediate action where necessary by altering his methods or size of gangs, or to deal with any weakness which has been pinpointed by the figures.

Cost control is not so formidable a task as is often imagined. If, for instance, an efficient and comprehensive bonus scheme is operated, cost control can be incorporated in the scheme. Again, it is not essential to develop costs on all operations all the time. Every builder will know that when he starts a contract certain operations or sections of the work are likely to be difficult. To start with, production can be measured daily on these items alone. When these operations are working economically and within target, another batch of operations can be dealt with in the same way, and so on until the whole job is running smoothly. Thereafter, spot checks can be taken on various operations to ensure that production is being maintained. As I implied earlier, the method of measuring production can be relatively simple. A schedule of operations for the whole of the work is drawn up, each operation being numbered and very briefly described—the bonus schedule will suffice for this—and against each operation is set a target in man-hours or money calculated from the rates in the bill of quantities. Copies of this schedule are posted in convenient places about the job so that all operatives can refer to and become familiar with it. The operatives themselves record on daily time cards instead of weekly time sheets—daily records are much more accurate than weekly. Each operative is handed a card when he clocks on in the morning and returns it, filled in, when he clocks off at the end of the day. Each evening there is in the foreman's office a complete record of the day's production, and the time for any operation can be quickly checked against the appropriate target. This is an extremely cheap method of cost control and as you will appreciate it can be elaborated to almost any degree.

**Conclusion.** There are many other aspects of economy, but I have endeavoured in this

talk to emphasise those which I consider the most important. The judicious expenditure of the client's money depends on architect and builder. With the architect it means an understanding of method as well as of form and materials, coupled with a full appreciation of cost, and with the builder it means efficient organisation and particularly site organisation, in all its aspects.

## DISCUSSION

**Mr. David Woodbine Parish,** in proposing a vote of thanks to Mr. Broughton, said: We have listened this evening to a very enlightened and thought-provoking paper. In all that he has said Mr. Broughton has emphasised the importance of cost, and that is something that is being borne in upon us day after day. We are realising that cost is ultimately going to be the controlling factor in the volume of work which we do.

In all that the lecturer has said he has really been speaking about waste control, which is another term for economy. He has pleaded with us to accept change. It is very difficult in this industry to cultivate a flexibility of mind which will enable us to re-think some of our future. I know that we have our institutes, our federations and our associations, but they are concerned with the protection of the interests of the people in those bodies, and it takes a great deal to disturb the minds of people collectively. That is what the lecturer has been trying to do this evening.

Everything that he has said has had reference to the management function of the building industry, a function which is not at all clearly understood. We live our lives in practically air-tight and water-tight compartments, and we have to think about the problem of education if we are going to be able to give effect to a great many of the lecturer's recommendations.

He spoke of the allocation of blame. Can the builder be blamed? Can the architect be blamed? I suggest we can all be blamed, but it is a waste of time to allocate blame. The whole process of building is a process of assembly, and that assembly is largely a matter of competent management. It is a joint matter, particularly of site organisation, which cannot begin until the design function is complete. Many people are concerned with the question of organisation and management—not only the architect and the builder, but also the quantity surveyor, the trade union official, the specialist consultant, the specialist sub-contractor, and the manufacturers and distributors of building materials. All those people depend in very large measure on human relations—the good will, the concord, the mutual trust which exist between all the representatives of the industry from the manual worker right up to the architect, who is the titular head of the team. If there are ill will, discord and mistrust, waste will follow. Those conditions produce the greatest amount of waste in our industry today.

I think some architects might be surprised if they knew what happens when tenders are sent in to them. I am perfectly clear in my own mind when I send in a tender to certain architects that it is necessary for me to add 5 per cent to my prices, because I know that I shall not be helped in the way in which I should like to be helped to complete the job at the right time and at the right price. In my tender I have to include a sum for what I know I am going to suffer financially, and unfortunately that is passed on to the building owner. There is another and a happier side. I know also the architect who runs his business with a high degree of competence and who understands management, and I am able to discount my price by 5 per cent, so the building owner saves 5 per cent. Those are building economics which are not very often talked about. I apologise if I am a little blunt about it, but I think it has to be said, and to be said at 66 Portland Place. It is a matter of management.

**Mr. George Fairweather** [*F*], in seconding the vote of thanks, said: I suggest that the best method of cost control is that exercised by many of my clients, who tell me what their requirements are and what the cost should be. The Ministry of Education have applied that principle with very great success in the development of the school programme. They introduced a set of requirements and principles were laid down to show us what sort of schools are needed at the present time. They left us with a freer hand in price at the earlier stages, and the results have proved the success of the technique.

With regard to incentives, the architect gets no financial benefit from economy. We have adopted a curious and significant arrangement for our remuneration. We do, however, derive a great deal of pleasure from bringing down costs. Waste control is the concern of all of us. Waste is a bad thing, whoever is responsible for it and wherever it occurs.

The architect has a very special function in appreciating the importance of the client's various requirements and trying to embody them in his plans, and he works in close sympathy and understanding with the client. Does he work in the same close sympathy and understanding with the builder? I think that is the lecturer's main point. I do not think that in fact the architect does work in the same close sympathy and understanding with the builder, and that may be partly due to a misunderstanding of function in relation to the builder. Mr. Woodbine Parish put his finger on a very important point, delicate as it was, when he said that when he was pricing for certain architects he put on a surtax of 5 per cent and when he was pricing for other architects that was an unnecessary course of action; and that he even knew an architect in whose case he might in fact reduce his price by 5 per cent.

A very important factor in building economy is tolerance. Any builder will appreciate what tolerance means when it is a matter of handling materials, and how important it is. But I wonder how many architects realise sufficiently how much importance, in the exercise of their functions in a contract, they should attach to tolerance in relation to the builder's requirements, his problems, his circumstances and the materials with which he is working.

Another point that the lecturer omitted to stress was the importance of the architect giving the builder clear and definite instructions and giving them sufficiently early. We have been preaching that for a very long time. The builder's function is becoming more and more complicated and specialised as time goes by. The lecturer makes it look even more difficult with his penetrating studies of the behaviour of foremen and other people concerned in building. I wonder whether our technique in giving instructions is sound. I wonder whether in fact we should not write more and draw less. If we were to go back to our offices and look at our drawings and our specifications and imagine that we were the builder called upon to perform this work, how should we react? I feel we should probably decide we were somewhat unnecessarily restrictive and that we might be a little clearer.

I noticed in the Press some time ago that a very penetrating investigation had been made into the cost in man-hours, and the lecturer referred to the remarkable discovery that man-hours per house varied from 1,565 to 4,645. It seems to me that there must be something wrong with the analysis which has produced that result. We are led to believe that the building is the same and that the circumstances are the same, and that the only difference is in organisation. I do not see how we can accept that without challenge. I have a simple method of costing; it is a very primitive one, but it works fairly well. If I cannot get at the price of certain operations, I add up the cost of the material and then double it. I believe it is not unusual that the cost of labour and the cost of materials in the normal building construction are comparable. If an operation can be done in 1,565 man-hours, a man who does it in 4,645 man-hours is surely breaking up and destroying a lot of material as well. I should therefore like to hear what the figure in materials comparable with these man-hours would be.

I believe that the lecturer is doing very valuable work in making these researches, but I do not think that researches in this particular direction will find the answer for us. I believe that the architect and the builder must work more closely together.

**Mr. M. Hartland Thomas,** O.B.E. [*F*]: I should like to ask the lecturer exactly what is written on the daily job card. It seems to me that the operatives might view it with some resentment, as something inquisitorial, or alternatively that it might be too difficult for all of them to fill up the card in a useful form.

**Mr. H. S. Howgrave-Graham,** A.M.T.P.I. [*A*]: We may be with the lecturer in principle, but it is a very different matter when one comes down to a full knowledge of the details of applying in practice what we believe. We see on our contracts the sort

of waste that goes on—for instance, a concrete mixer left in the wrong place. When it comes, however, to the knowledge which is necessary to decide the proper type of plant for any particular project, it seems to me that the research people might help the industry and architects generally if the results of the research could be brought easily and readily to the notice of the people who have to apply it. We all get an enormous quantity of literature to consume, but the right medium for this particular information might well be a film.

**Mr. A. A. Macfarlane,** A.M.T.P.I. [*A*]: I was somewhat worried about the architect interfering with the builder's organisation and I think it needs a great deal of study before we can deal with it with any confidence. In the case of the younger architects, who have not had an opportunity of dealing with big jobs—such as £100,000 jobs, say—it might have a most destructive effect on the builder's work if the architect insisted on having his way.

**Mr. J. A. Spon** [*A*]: Mr. Woodbine Parish made the remark that we all live in watertight compartments. One thing that impresses me is how much the economy planners live in watertight compartments. I would suggest that the lecturer should go out and talk to the clients. They are the people who say that we have to get half a dozen tenders. How can we co-operate with the builders in the design stage if we do not know who they are?

**Mr. Lesslie K. Watson,** M.B.E., T.D. [*F*]: Before the war an architect could build up an experience of materials which served him well and which proved to be economical. Since the war we have had very much more difficulty. The old materials have not been available or have been too expensive, and we have been faced with many new materials which are only now beginning to show their weaknesses. The cost of building fluctuates, so that it is difficult to say from past experience what it is going to be in the future. It was quite easy before the war to keep a record of the cube cost of a building or the square footage cost, so that a client could be told what the cost would be, but it is difficult to do that now. I have one suggestion to make, that is, that the building journals should get from the architects and the building industry the cost of buildings per cu. ft. or per sq. ft. and publish that information. If we were able to look up the cost of a certain building which had just been finished, it would be a very great help to everyone in the profession.

**Mr. J. C. Ratcliff,** O.B.E., A.M.T.P.I. [*A*]: I should like to make this point. We start with the design on the board, and with economy in view we may select a type of construction which enables the roof to go on at an early stage, thereby permitting the following trades to work economically. But the estimator who is pricing the bill may not take into account the form of construction. He has the rate per yard of concrete and so on, and he works on these rates regardless of the fact that, by the type of construction chosen, the architect hoped to bring down the overall time and hence the builder's overheads. I feel we should like to know that any economy in construction was taken into account in the pricing.

We may be very enthusiastic about programmes, site meetings and helping to organise the contract, but there is a pitfall for the unwary. We may plan too closely, and the contractor may turn round and say to the architect: 'Look here, who is running this contract? You have suggested certain things and I will hold you to them, and I am going to present you with a claim.' I have known that happen.

**Mr. A. T. Fairhead:** I am a builder, and I should like to enlighten Mr. Ratcliff on our attitude to architects generally. He made a point about the reduction in cost to be obtained from planning in such a way that the work can be done more quickly by being covered in, and so forth. That is taken into account in our calculations and we make a discount for it.

With regard to Mr. Ratcliff's point about the builder holding the architect to certain instructions and saying: 'There is a claim coming along in the next few weeks', or whatever it may be, I think the general attitude of builders on the question of claims is that they will not make a claim unless a definite and substantial loss is caused. We do not like making claims, but in some cases it is necessary.

**Mr. R. Eve** [*A*]: During the discussion I think there has been a little misunderstanding about the lecturer's experience. I hope that he will be a little more biographical and show the meeting that there are people at the Building Research Station who know something about building.

**Mr. W. A. Allen** [*A*]: Having listened to the discussion this evening and having worked at the Building Research Station for nearly twenty years as an architect colleague of Mr. Broughton's, I have been shocked to discover how his views are received in my profession. It is a revelation to me of how one can be carried along by one's colleague and one's thinking and then discover that one is differing from one's profession and its thinking.

**Mr. H. F. Broughton** in replying to the discussion said: I should like to refer to the remarks made by Mr. Fairweather, who in effect summed up the whole position in a very small nutshell. That summing up can be put into one word: tolerance. He showed the correct development of the architect-builder relationship and the tolerance that will arise from it, and I hoped that was the sort of impression that would be left by my address.

One criticism was made to which I do seriously object. I am not now speaking personally; I am speaking as a member of the Building Research Station staff. My particular division is the Building Operations Research Unit, and I can assure the meeting that we do not live in an ivory tower or a closed box. Every day we are in contact with architects, quantity surveyors, builders and operatives, and probably we are in contact with them very much more than are the isolated architect and the isolated builder. We have a much greater knowledge of the range of ideas, the range of performance and the range of production. Moreover, I myself was connected with building for about forty years before I joined the Building Research Station, and my experience covered a very wide variety of building. Therefore I would assure you once again that we are not working in closed compartments, and although we may be Government-sponsored we are not a Ministry.

The daily time cards were in fact introduced as an experiment; they have been in use now on about four different jobs over a period of about six months, and we have no fault whatever to find with them.

As to the details on the daily time cards, we break the building down into functional components, and those functional components in turn are broken down into operations. Those operations coincide with the operations that the operative normally understands, and each of those operations is given a number and a very brief description in colloquial language, so that the operative understands them. The use of a number and a description provides a cross-check. I can assure you that these daily time cards have been wonderfully effective, and we have been somewhat surprised at this ourselves.

There has been a suggestion that, if the architect combines his ideas on site organisation with those of the builder, the architect will be the controlling element in such an arrangement. I was not trying to indicate that. We do know that, as has been stated in the discussion, the architect is the titular head of the organisation, but in the matter of site organisation I assumed that the architect would be content to be an equal partner with the builder, and it is on that idea and on the question of tolerance that I have based my remarks.

On the question of making films, to which Mr. Howgrave-Graham referred, I would point out that films have already been made by the Building Research Station and by the Ministry of Works. It will take us some time to build up a really large library of them, but there are already in existence films which indicate the right way and the wrong way of doing jobs. Apart from that, the Building Research Station is prepared to give advice to builders at any time, and this side of our work is developing more and more every day. I get at least two or three telephone calls a day from builders who are in difficulty and want advice, and builders are continually calling upon us with regard to organisation methods, mechanical plant, and so on. We are very pleased indeed to give our advice to any builder who asks for it.

# Review of Construction and Materials

*This section gives technical and general information. The following bodies deal with specialised branches of research and will willingly answer inquiries.*

*The Director, The Building Research Station, Garston, near Watford, Herts.*
*Telephone: Garston* 2246.

*The Officer-in-charge, The Building Research Station Scottish Laboratory, Thorntonhall, near Glasgow.*
*Telephone: Busby* 1171.

*The Director, The Forest Products Research Laboratory, Princes Risborough, Bucks.*
*Telephone: Princes Risborough* 101.

*The Director, The British Standards Institution, 2 Park Street, London, W.1.*
*Telephone: Mayfair* 9000.

*The Director, The Building Centre, 26 Store Street, Tottenham Court Road, London, W.C.1.*
*Telephone: Museum* 5400 (10 *lines*).

*The Director, The Scottish Building Centre, 425–7 Sauchiehall Street, Glasgow, C.2.*
*Telephone: Douglas* 0372.

**Secondite.** An architect might be forgiven for betraying a trace of scepticism on reading of a material for which the claim is made that it resists fire and acids, is an insulator, can act as a filter to separate light oils from water, will protect petrol tanks from explosion, and will allow a motor car to be run without the normal petrol pump or carburettor. A recent demonstration, however, showed these claims to be not unfounded.

Secondite is made from rice husks treated by a patented process so that the vegetable matter is removed, leaving an inert material having a high silica content. Secondite is of three types, A, B and C, which have different uses but common characteristics.

With suitable binding agents, such as cement and magnesite, types A and B are for use as building materials; type C being appropriate for making pavements, wallboards, furniture and for other purposes where fire and acid resistance is required.

Among the tests shown at the demonstration were the following: Two thin slabs made with Secondite C and magnesite were leaned against each other in the form of an inverted V and petrol-soaked material was lighted within the V. The slabs remained intact. A slab about 5 in. thick of type A and cement, with an iron bar in it, was placed over a brazier; after some twenty minutes—with the fire still burning and the iron bar red-hot—the hand could be placed on top of the slab without any discomfort. A cupola about 2 ft. in diameter and 2½ in. thick, in 3 parts cement to 1 of type A, was inverted on the ground after a packet of butter had been placed underneath. Petrol was then burnt all round the cupola, and after many minutes and almost before the flames had died, the cupola was removed and the butter was found to be in its original shape.

The patentee, Signor Secondi, then held on his hand a thin panel of type C and magnesite while an oxy-acetylene flame was applied to the upper surface. The flame did not pierce the panel. A tank lined with Secondite and containing petrol was pierced with an oxy-acetylene flame. The petrol did not explode. The hole was then welded over, while the petrol was still inside the tank.

Sprinklings of petrol were ignited and Secondite was thrown on the flames, which immediately went out. As a dramatic demonstration a tank was filled with Secondite and petrol; an explosive charge was placed underneath and exploded by a time fuse. The tank impressively overcame the laws of gravity but the petrol neither exploded nor burned.

It may be mentioned that during the demonstration Signor Secondi went about with a Secondite-lined can of petrol and casually poured petrol over the various fires without any harmful effects to himself.

It is understood that 'the properties and uses of this peculiar material have not yet been fully exploited. Further development work is being done in Italy, Denmark and America. But sufficient information is available to show its potentialities . . . and it is believed that for all kinds of fire and explosive protection, for armour plating, thermal insulation and for water resistance it will prove to be unequalled by any other material at present available.'

Inquiries should be addressed to the Secondite Co. Ltd., of 25 Millbank, London, S.W.1.

**Ordnance Survey Bench Marks.** New lists of bench marks in Great Britain, describing their location and giving altitude and National Grid co-ordinates, are being prepared by the Ordnance Survey. They will normally include the bench marks in an area covered by the 1 : 2,500 National Grid Plan. Where the basic survey is on a smaller scale the lists will include the bench marks in an area covered by one 6-in. map or by one 1 : 25,000 map, whichever scale is relevant. No further issues will be made of the present bench marks lists issued for areas covered by 1 : 25,000 sheets though the data contained in them will be available in the new form. The prices of the new lists are: 1 : 2,500 area lists, 6*d.*; 6-in. area lists, 2*s.*; 1 : 25,000 area lists, 4*s.* They may be obtained from the Ordnance Survey, Leatherhead Road, Chessington, Surbiton, Surrey.

*Note.* From 1840 onwards Ordnance levels were based on the Liverpool datum but this was later found to be not sufficiently accurate for scientific purposes, being computed from only a fortnight's observations; nor was Liverpool a suitable site, situated as it was on a tidal river. It was also discovered that there was a general cumulative error, complicated by local errors, in the levels taken throughout the country, due partly to the imperfections of the instruments then in use and partly to methods of revision which the advance of scientific knowledge had proved to be faulty.

It was therefore decided to re-level, and Newlyn in Cornwall was chosen for the new datum point as it was on the open sea; hourly observations were made over a period of six years, 1915–1921, and from these the mean sea level was computed as the Newlyn datum.

The variations between the Liverpool and the Newlyn levels are due to the difference of datum and the correction of errors in the old levels; they therefore vary throughout the country. In certain localities surface movements may play their part. An indication of the difference may be gained from two examples: old Liverpool reading, 75·319, Newlyn 74·279, difference 1·040 ft.; old Liverpool reading, 59·824, Newlyn 58·529, difference 1·295 ft.

**Insulation.** The cold spell of January, which lasted into this month, must have made many persons wish they had done something about insulation in their homes, especially of the water supply. With the approval of the Ministry of Fuel and Power a joint committee of the Coal Utilisation Council, the Gas Council and the British Electrical Development Association have issued a brochure under the title *Make Your House Cosier in Winter*. It falls within the 'popular' type of publications as it is meant for the householder; it is therefore rightly written in a chatty way and tells how to insulate the roof space, how to get rid of draughts from windows and doors, and how tanks and cylinders should be protected.

There is nothing in the brochure that an architect does not know on the subject, but what he will find useful is the loose leaf insertion which gives the trade names of various insulating materials, the form in which they can be had (rolls or bags), the approximate cost for a loft of 500 sq. ft., the name and address of the maker, and where the material can be obtained.

Organisations interested in distributing the brochure can obtain copies at the price of 31s. 3d. per 100. Inquiries should be addressed to the Domestic Insulation Committee, 3 Upper Belgrave Street, London, S.W.1.

**Quitfire.** This is the name given to a process for making fibre insulation boards non-inflammable without nullifying their thermal conductance properties. It is an impregnation process which confines the protective substances to just below and above the surface of the board, and if the board is exposed to fire these substances melt and go deeper into the interior; for this reason nail holes and similar injuries do not matter because the cavities are quickly sealed against fire by the melting substances. Thus the board retains its cellular

nature and therefore its physical properties until the last moment—which means a long time, because the process puts treated fibreboards into Class 1 fire grade when tested in accordance with the B.S. 476 Spread of Flame Test.

Treated boards are claimed to be non-hygroscopic, non-toxic, and resistant to fungus. Suitable oil paints or oil-bound distempers can be applied to treated boards.

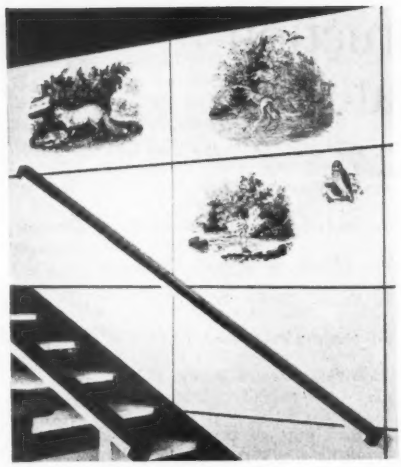
The JOURNAL put a specimen through a hard test by playing on it the flame from a gas brazing torch for a few minutes; the board blackened but did not flame, nor did a purposely cut edge burn, which normally would be a weak point. Throughout this test the hand could be held against the back of the board without any discomfort, indeed without feeling any sensation of warmth until right at the end, and even then the warmth was very slight. The specimen retained its rigidity.

The Quitfire process is owned and carried out by Messrs. S. O. Rudkin and Co. Ltd., of Plantation House, Mincing Lane, London, E.C.3, and they inform us that they can supply treated board or can treat any board an architect wishes to use for a specific purpose; the cost of treating ½-in. fibre insulation board is 2½d. per sq. ft. for quantities of 15,000 sq. ft. and over, and 2¾d. for lesser quantities, exclusive of carriage. A special grade is available which combines anti-fire, fungus and termite qualities. Quitfire processed board was used in the Coronation Annexe at Westminster Abbey.

**The Floorman.** Under this title a new quarterly bulletin is being published and the first number has appeared. The aim of the bulletin is 'to bring to the notice of architects, builders and users of floorings the problems of the man who lays the flooring'. Unsuitable sub-floors often cause trouble and therefore the first number of THE FLOORMAN contains some suggestions about concrete sub-floors. The issue also contains recommendations for laying linoleum. THE FLOORMAN is published at 1/394 Streatham High Road, London, S.W.16.

**Linoleum.** The Linoleum Manufacturers' Association—Thelma—have issued a loose-leaf folder, *Plan for Linoleum*, containing plan No. 1 which gives information and advice on laying linoleum on concrete floors. Additional information sheets will be published from time to time, for insertion in the folder. The address of the Association is 127 Victoria Street, London, S.W.1.

**Scottish Model Byelaws and British Standards and Codes of Practice.** In the Model Building Byelaws prepared by the Department of Health for Scotland, 52 British Standards and Codes of Practice are referred to, and in the appendix 173 are listed as likely to be appropriate to the requirements of the byelaws. The British Standards Institution are prepared to supply the 52 documents at a special price of £5 the set, as against the list price of £9 3*s*. The 173 documents listed in the appendix may be had for £18 18*s*. as against the list price of £29 14*s*. Off these special prices subscribing members of the B.S.I. will get the additional discounts to which they are entitled. Orders should be sent to the British Standards Institution, 2 Park Street, London, W.1.



Plastic murals on staircase wall of Livingstone school, New Barnet

**Plastic Murals.** An interesting development in the decorative treatment of schools is the extended and carefully-considered use of colour and, lately, of murals; but a mural that is painted direct on a wall is liable to be damaged. It also presents a problem when redecoration is put in hand. These two disadvantages have been avoided at the Livingstone primary school recently erected at New Barnet for the Hertfordshire County Council.

Photographic enlargements of 18th- and 19th-century wood-cuts and engravings of English plant, animal and bird life have been incorporated into the surface of a wall made of panels of Warerite veneered board. The murals therefore form part of the plastic surface and should be harmed by none but the grossest ill-treatment, while a damp cloth is all that is needed to keep them clean.

**Concrete Blocks.** The Cement and Concrete Association have produced a series of 'Man on the job' leaflets, of which No. 17 deals with concrete blocks of the dense and lightweight types. The information given is written in simple language and covers sizes, laying, mortar, cavity walling, pointing, painting, and points to remember. An appendix gives guidance on the type to use for specified purposes.

Another publication, *Concrete Block Walls*, covers the same ground but more fully and it gives additional information, such as thermal insulation and fire resistance.

A third brochure, *An Introduction to Lightweight Concrete*, describes the kinds of lightweight concrete, the aggregates commonly used, and points to be borne in mind when using the material. The production of no-fines and aerated concrete is described. The London office of the Cement and Concrete Association is at 52 Grosvenor Gardens, S.W.1.

**Strength of Timber.** The Forest Products Research Bulletin, No. 28, *The Strength Properties of Timber*, gives the results of standard tests made on 122 native-grown and imported softwoods and hardwoods. The tests included static bending, impact bending, compression parallel to grain, hardness, shear parallel to grain, and cleavage, and these are important in the selection of a species for a particular purpose. Tables, graphs and an appendix set forth the information gathered from the tests.

The bulletin is published by H.M.S.O., price 2*s*.

**Codes of Practice Recently Published.** CP 304 (1953) **Soil and Waste Pipes above Ground.** Contents; design and installation of internal and external soil, waste and ventilating pipes. Rainwater pipes are not included. Definitions are given, also a list of relevant British Standards. The section on design considerations contains details of systems in use, with recommendations on lay-out and design of pipe-sizes and gradients. Tables, in terms of 'discharge units' are given, with suitable sizes and slopes.

The section on 'work on site' describes jointing methods suitable for pipes made of all the usual materials. An appendix gives data and tables regarding single-stack systems in one-storey or two-storey houses. Obtainable from the British Standards Institution, price 6*s*. post free.

**British Standards Recently Published.** B.S. 1207: 1953. **Hollow Glass Blocks.** Contents; types and sizes, thickness of glass, dimensions, tolerances and weights. Price 2*s*. net.

B.S. 1212: 1953. **Ballvalves (Portsmouth type) excluding floats.** Contents; materials, silencing pipes and anti-syphonage provision, testing, tables of dimensions of component parts. Illustrated. Price 6*s*. net.

B.S. 2053: 1953. **General Purpose Farm Buildings.** Contents; basic dimensions of truss centres, spans and heights. Dead load and wind pressure; stresses and design details. Minimum dimensions of side stanchions. Materials for components; reinforced concrete, steel, timber, aluminium alloy. Finish of components. Appendix A, concrete foundations. Appendix B, list of British Standards which may be required for the completion of the building. Price 2*s*. 6*d*. net.

B.S. 2028: 1953. **Precast Concrete Blocks.** Contents; dense aggregate concrete blocks; lightweight blocks for loadbearing walls; lightweight blocks for non-loadbearing partitions. Dimensions and tolerances. Width of cavities. Joints. Strength tests. Appendix A, compressive strength test. Appendix B, determination of drying shrinkage and moisture movement. Appendix C, determination of density. Appendix D, transverse test for lightweight solid blocks. Price 3*s*. net.

# R.I.B.A. Final Examination Theses

## A Decline in Quality; some Suggestions for Achieving a Requisite Standard

*The following notes have been drawn up by the R.I.B.A. Final Examination Theses Examiners for the guidance of candidates.*

THE PURPOSE of the Final thesis is to discover not only whether the candidate has something to say but whether he can say it in good clear English. Every Probationer and Student will be aware that a qualified member of the profession, be he private practitioner or salaried architect, has as often to express his ideas by means of the written word as by means of the drawing. Both means of expression must therefore be equally lucid and unambiguous.

Theses submitted for the Final Examination during the past two or three years have revealed that too often marks have been lost by the commission of certain common faults—some serious, others less so—with a resulting deterioration in the average quality of the theses submitted. It is felt therefore that it may be of assistance to future candidates if these prevalent faults be brought to their attention now in the hope that, by avoiding them, candidates will be enabled to submit theses of a more acceptable standard.

It may be said at once that most of the faults in question could be avoided if candidates were to read, and take note of, the Memorandum published by the Institute for their guidance when preparing for these examinations. The notes in this Memorandum have been carefully drafted and their every word is meant to be taken to heart. The Memorandum however assumes —perhaps not unreasonably—that, by the time they come to sit for their Final Examination, candidates can at least write English without committing gross errors of spelling and punctuation. In fact, this has too often proved to be a quite unwarranted assumption. Faulty spelling and punctuation are perhaps the most usual—and least necessary—causes of mark deduction. There is no excuse for these.

Other points which demand mention are briefly given below under three main headings:—

(1) **Subject Matter**

(*a*) The subject matter for a thesis, however specialised, should be directly related to some aspect of architecture and in its treatment this relation must not be lost sight of.

(*b*) For most subjects one week's research 'in the field' is worth many weeks' study in a library.

(*c*) Try to avoid covering unnecessary ground, i.e. do not describe in detail such accommodation or equipment in a specialised building as is commonly found in most buildings, e.g. kitchen, lavatories, etc.

It is usually safe to assume, too, that most architects—and certainly those who will read your thesis—know their Banister Fletcher as well as you do and do not need to be told, for instance, the difference between the Doric and Ionic Orders.

(2) **Literary Style**

(*a*) Keep to the point. Make up your mind what you want to say and then say it clearly and concisely.

(*b*) Avoid the use of 'I', 'my', etc. It is better to write impersonally.

(*c*) Read *Plain Words* by Sir Ernest Gowers (H.M.S.O. 2*s*.) and any of Eric Partridge's works on punctuation.

(*d*) Acknowledge the source of all quotations.

(*e*) Avoid slang, colloquialisms and cliché—above all such phrases as 'What of the Future?'

(3) **Presentation**

(*a*) Pages must be numbered.

(*b*) Photographs not by the author and illustrations cut from magazines are acceptable *provided these are strictly limited to those cases where no other form of illustration is obtainable, e.g. where the subject is in a remote foreign country.* The sources of all such illustrations should be given.

(*c*) Illustrations should not form the bulk of the thesis (see R.I.B.A. Memorandum mentioned above).

(*d*) The outside cover should bear the title of the thesis and the author's name.

(*e*) Bibliographies should be carefully compiled and should state—accurately and fully—the title, author and, if possible, the date and publisher of every work mentioned.

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# Practice Notes

Edited by Charles Woodward [*A*]

**IN PARLIAMENT. Local Authorities' Insurance Schemes.** Asked which were the authorities that operated schemes for insuring the contents of houses let to tenants and owned by local authorities, and in what respects he considered there was a doubt as to the legality of schemes operated by local authorities for insuring the contents of their tenants' dwelling-houses, and what action he proposed to take to clarify the position, the Minister of Housing and Local Government replied:—Local authorities do not have to inform me about such schemes, and I know of two authorities only which operate them. I have no authority to interpret statutes, but I am advised that, unless a local authority have a financial interest in such contents, they have no powers to operate insurance schemes. The action does not lie with me. The action would lie with the District Auditor. (19 January 1954.)

**Slum Properties. (Ownership.)** Asked whether he had considered the proposal, details of which had been submitted, to strengthen the powers of local authorities in dealing with slum properties, the actual ownership of which was difficult to establish, the Minister of Housing and Local Government replied:—Yes, sir, but I am not at present inclined to impose a new obligation upon all owners of property in the area of a local authority in the hope—which may well prove illusory—of establishing the identity of a limited number of them. It is really no use making a law which cannot be enforced. Under Section 168 of the Housing Act 1936 there are already powers, and I do propose, as the hon. and gallant gentleman has no doubt observed, in the First Schedule of the Housing and Rents Bill now before the consideration of the House, to strengthen the powers of action, which is the thing that matters, in the event of not being able to trace a particular owner. (19 January 1954.)

**Reconditioning Schemes (Architects' Fees).** Asked whether he is aware that many housing reconditioning schemes are being delayed in order to enable architects' fees to be claimed in respect thereof under the Housing Repairs and Rents Bill; and what action he proposes to take to stop delays on this account, the Minister of Housing and Local Government replied:—I am not aware of any delay on this account, but if my hon. Friend will let me have particulars of the cases he has in mind, I shall be glad to look into them. (1 February 1954.)

**Carlton House Terrace.** Asked the total area of Carlton House Terrace on which it is proposed to build the new Foreign Office; how much of this area has been so far acquired; and how much has been paid for it, the Minister of Works replied:—The total area of the site of Carlton House Terrace is about 3½ acres. The Commissioners of Crown Lands are the freeholders. No part of the freehold has been acquired by my Department. The leaseholds of Nos. 17, 10 and 11, representing an area of about ½ acre, were acquired in 1948 and 1950 at a cost of £114,500. (3 February 1954.)

**Compulsory Purchase Orders.** Asked if he is now satisfied that the system of inquiry into the compulsory purchase of land provides enough time for objections to be lodged on behalf of the occupier; and if he will give an assurance that where such compulsory purchase takes place, reasons

for making these decisions are published, the Chancellor of the Exchequer replied:—The Acquisition of Land (Authorisation Procedure) Act 1946 prescribed time limits for the lodgment of objections to a proposed compulsory purchase order. So far as I am aware the time limits are adequate. There is no statutory obligation on the confirming Minister to give reasons for his decision to confirm a compulsory purchase order. (3 February 1954.)

**MINISTRY OF HOUSING AND LOCAL GOVERNMENT. Requisitioned Premises. Removal Expenses.** Circular L.R.L. 3/54 dated 18 January, addressed to housing authorities in the London Region, states that the Minister is prepared to approve for reimbursement a payment not exceeding £10 in amount towards the cost of removal from a requisitioned property when the removal is made compulsorily to enable the property or another requisitioned property to be released.

No payment should be made by a local authority except where the licensee would otherwise be involved in serious financial hardship. A record of cases where payments have been made must be kept for production to the District Auditor.

**NATIONAL JOINT COUNCIL FOR THE BUILDING INDUSTRY.** The Council have authorised the publication of their decision that an adjustment is due of 1d. per hour increase in wage payments. As a result the following new standard rates (per hour) apply as from 1 February 1954.

| | *Craftsmen* | *Labourers* |
|---|---|---|
| London (within 12-miles circle) .. .. .. | 3/9 | 3/3½ |
| London (12–15 miles) .. | 3/8½ | 3/3 |
| Grade 'A' Districts .. | 3/7½ | 3/2 |
| Grade 'A1' Districts .. | 3/7 | 3/1½ |
| Grade 'A2' Districts .. | 3/6½ | 3/1 |
| Grade 'A3' Districts .. | 3/6 | 3/0½ |
| Liverpool Special .. | 3/9 | 3/3½ |

**Apprentices and Young Male Labourers.** It is to be noted that this increase in the standard rates of wages will require consequential adjustments in the rates of wages of (i) apprentices; (ii) young male labourers. Under the respective Agreements the rates for apprentices are a prescribed percentage of the craft rate and those of young male labourers are a prescribed proportion of the labourers' rate.

**Women Operatives.** Clause 7 of the Agreement on the Employment of Women requires that their wage rates be adjusted in accordance with cost-of-living reviews, '. . . the adjustment being in each case equal to that applied to standard craftsmen's rates'. Accordingly women operatives, whether engaged on craft processes or on other processes, will be entitled to an increase of 1d. per hour.

**Watchmen.** Under National Working Rule 1(*f*), the remuneration of watchmen employed in the building industry is fixed on the basis of a rate per shift to be determined annually at the statutory meeting of the Council in accordance with the average of monthly retail prices figures published in the antecedent twelve months and the general principles of Rule 11(*b*). The average figure of 139 10/12ths corresponds to a rate per shift of: *London and Liverpool*, 20*s.* 3*d.*; *Provinces*, 19*s.* 0*d.*

**ARBITRATION CLAUSE IN CONTRACT.** In the R.I.B.A. Form of Contract, the clauses dealing with the determination of the contract by either Employer or Contractor use the words 'determine the employment of the Contractor under this contract'. It is thought that under this wording the rights and remedies under the contract still apply, including rights and obligations to submit disputes and differences to arbitration.

In the case of Heyman *v.* Darwins, Ltd. (1942. 1 All E.R. 337) the Court, speaking of repudiation of a contract, in the sense not of a denial of the existence of the contract but of conduct evincing an intention no longer to be bound by it, said that the contract is not put out of existence, though all further performance of the obligations undertaken by each party in favour of the other may cease. It survives for the purpose of measuring the claims arising out of the breach, and the arbitration clause survives for determining the mode of their settlement. The purposes of the contract have failed, but the arbitration clause is not one of the purposes of the contract. It is inserted as a method of settling disputes, and is not imposed as a term in favour of one party or the other.

**MODEL BUILDING BYE-LAWS IN SCOTLAND.** New model building bye-laws have been published by the Department of Health for Scotland and are obtainable at H.M. Stationery Office, price 5*s.*

Every local authority is being very strongly urged by the Department to introduce building bye-laws on the lines of the new model with the minimum of delay.

The new bye-laws, one model for burghs and another for counties, have been drawn up with the advice of a technical working party set up by the Secretary of State in April 1952 to revise the old models, with special reference to 'changes in building standards and techniques in this and other countries and to economy in the use of materials'. At present, say the Department in a circular which is being sent to all local authorities along with the new bye-laws, the development of new building techniques is being hampered, and attempts at economy stultified, by the outmoded pattern of the existing arrangements. 'In many districts there exist no bye-laws at all; where they do exist they are out of date. The newest are based upon the model bye-laws issued by the Department in 1937. The standards as laid down then are restrictive and sometimes inappropriate or even insufficient when applied to modern building methods and materials.'

The aim of the new models, which are prepared on a flexible basis to take account of the ever-widening variety of modern building methods and materials, is to let local authorities retain full control over building standards, yet at the same time to secure economies and to give the builder freedom to use a wider range of materials and techniques than has hitherto been possible under bye-laws drafted on conventional lines.

The Department of Health have stressed the desirability of local authorities' adopting the models with as few variations as possible, so that builders operating in several local authorities' areas will not—as at present—have to struggle with a great variety of specifications.

Bye-laws have, so far, been based on specifications for various parts of the structure, using traditional materials and methods; but they have been found to be restrictive, inappropriate and sometimes insufficient when applied to modern techniques. To achieve the flexibility necessary to admit new materials and developments in building techniques, a new form has been evolved for the bye-laws. Instead of laying down, for example, that walls are to be of bricks or stone and of a certain thickness and construction, the new bye-laws will, without being specific as to materials and sizes, require walls to withstand specified loads and stresses, to resist fire to a certain degree, to be suitably weatherproof and, where necessary, to have an adequate resistance to the transmission of heat and sound.

Any material or form of construction may be used that will satisfy the relevant requirements. But these requirements are of necessity expressed in precise technical terms; so to meet the usual case and to make it easier for those without specialist knowledge to see how the requirements can be met, specifications in terms of conventional materials are given as examples of constructions achieving the necessary standards. Thus, for a two-storey house, a cavity wall of brick, 10½ in. in thickness, roughcast on the outside and plastered on the inside, satisfies the bye-law requirements on structural strength and stability, fire resistance, weatherproof qualities and resistance to the transmission of heat.

The Department of Health emphasise that the possible ways of meeting the bye-law requirements are by no means confined to these specifications, which only cover a few main examples. Different or entirely new methods should not be discouraged or rejected merely because they do not conform with the sample specifications, but should be judged solely according to whether or not they measure up to the technical standards.

'Prestressed concrete is an example. There is at present no accepted code for its use, and no specific reference to it in the bye-laws has therefore been possible. But the use of prestressed concrete is becoming widespread and it offers scope for considerable economies. It is of the utmost importance that no obstacles should be placed in the way of designers wishing to use them or other new or improved techniques and materials which meet the

relevant performance standards or can be readily adapted to meet them.'

Apart from their new form, the models incorporate some important new provisions. Requirements are laid down for means of escape from fire in various classes of buildings ranging from blocks of flats to public buildings, and there are detailed provisions about the fire resistance of walls, floors, etc. These provisions in combination should reduce fire risks to a very great extent. A good level of sound insulation between houses and flats will be ensured by bye-laws laying down the resistance in 'decibels' to be attained by separating walls and floors. Requirements are also given for the thermal resistance of walls, floors and roofs of houses.

## LAW CASES

**London Building Act 1930. Car Shelter in Front Garden.** In the JOURNAL for November 1953 this case was noted in which the magistrate found that the shelter which had been erected in the front garden was not a structure within the meaning of the above Act.

The L.C.C. appealed against the magistrate's decision and the Divisional Court on 28 January allowed the appeal. Had the case raised a mere question of fact the Court would have been bound by the magistrate's decision, but he had dismissed the summons and had not asked himself the proper question. The London Building Act was meant to include something wider than buildings, and the real question was whether what had been erected was a structure. If it had been some temporary thing, like a tent, the Court would say it was not a structure, but this was put up to be permanent and for the purpose of housing a car where there was no garage. The Court must hold that the magistrate did not ask himself the proper question and the appeal would be allowed, accordingly with costs, and the case sent back to the magistrate with a direction to convict. (THE ESTATES GAZETTE, 6 February 1954.)

**Arbitration. Remitting an Award.** Under the Arbitration Act 1950 the Court may remit an award to the arbitrator for reconsideration of the matters dealt with in the award. There is also power to set aside the award.

In an application to the Court in respect of an award the matter to be considered is whether it should be remitted or set aside. This is discretionary and the Court would have in mind the fact that the parties have chosen the arbitrator, and if it is avoidable they should not be put to the expense of starting the proceedings *de novo*. The award would only be remitted if that could be done with justice to the parties.

Arbitrators are not obliged to give any reason for their decision, but, if they have done so and it appears to be defective, they may be given an opportunity of curing that defect. It would not seem that there is any rigid rule that, because there is an error of law on the face of an award, it should never be remitted to the arbitrator.

The Act provides that where an arbitrator has misconducted himself or the proceedings, the Court may set the award aside, and it would appear to depend on the facts of the case whether the award should be remitted or set aside.

To avoid such happenings an arbitrator should, having arrived at his decision, leave the actual form of the award to be drawn by a lawyer.

# Correspondence

## THE 'BLESSING TO MANKIND'

*The Editor, R.I.B.A. Journal.*

SIR,—I cannot understand this reverence for the separate W.C. To me, a housewife and mother, it is an abomination.

In houses where this 'blessing to mankind' is installed in solitary (and unhygienic) glory, it is usually necessary to handle four doorknobs and sometimes two electric light switches, after the W.C. has been used, before hands can be washed.

Can one reasonably expect a child, after using the W.C., to wait patiently until a grown-up comes out of the bathroom in order to wash his hands? Far more likely that he will run off to the corner shop for some sweets, or be sent for a nice loaf of unwrapped bread. And let's face it, how many grown-ups are beyond reproach in this matter? Admittedly, the juxtaposition of W.C. and lavatory basin does not in itself solve the problem, but at least all excuse for dirty habits is removed, and the drill of cleanliness is much more easily established.

Then there are times of illness to which Mr. Gill refers, when, for instance, one may be up all night with a sick child. How often at such times do unpleasant things have to be emptied, followed by rinsing, swilling, and washing of hands? What a dreary trudge it is, especially in the quiet small hours, from W.C. to bathroom, bathroom to W.C., and back again.

Put the bath-tub in a separate room by all means, but please, please keep W.C. and lavatory basin together as one unit.

CHRISTINA PRESS [*A*]

DEAR SIR,—I am afraid that your correspondents on this question have rather misunderstood the plea in my letter of November last. I did not advocate that the domestic water closet should be without washing facilities in close proximity to it, but merely that it should not be sited in the only bathroom in the house.

I agree most cordially that the W.C. compartment should contain a wash-basin, either fixed or portable. Perhaps the tip-up basin, as used in the lavatories of some of our recent railway carriages, would solve this problem?

Yours faithfully,

W. H. GILL [*A*]

## ARCHITECTURE OF THE POWER STATION

DEAR SIR,—A friend drew my attention to Mr. Trystan Edwards's interesting paper on 'The Architecture of the Power Station', which appeared in your December issue.

With the background of a professional engineer who has encountered many types of power station building whilst working for a manufacturer of power station plant, I was attracted by the progress represented by the general appearance of the design for Willington. There is one respect in which a change might result in even greater improvement. The hyperbolic cooling towers do seem to be out of sympathy with the rest of the design.

May I suggest that mechanical draught cooling towers of ferro-concrete or wooden construction, which might lead to a building some 250 ft. long, 20 ft. wide and 30 ft. tall, would be a more pleasing solution for the cooling plant of a power station.

There are manufacturers of mechanical draught cooling towers who can produce a suitable type at a total cost comparable with that of a hyperbolic tower, even if the greater running costs of the former are included.

The general appearance of such a tower, with its open or slatted sides and division into cells, would appear to provide 'lines' naturally suited for inclusion in the Willington design.

Yours faithfully,

J. C. WILLIAMS
*Chartered Mechanical Engineer.*

## LE STYLE POMPIER

SIR,—After reading in the December issue the report of Sir Patrick Abercrombie's address 'Architecture at the Cross-roads', I am wondering whether he does not do some injustice to what is inferred by this 'style' and (as a dweller in Bath) whether he rightly applies it to Great Pulteney Street.

As I understood it (possibly incorrectly)

the derisory epithet 'le style pompier' was applied by enemies of the Second Empire to the Paris opera building on the strength of the dress uniforms of the *sapeurs-pompiers* so much in evidence there, and in contradistinction to 'le style pompeux' which had previously designated the monuments of Louis XIV, and which label could also be attached to Baldwin's Great Pulteney Street. This last does have in it a small element of personal glorification which is absent in the rest of Bath, but it adheres to traditional classic without adding the ebullience which would rank it as *pompier*.

Whatever may be said of the *pompier*, it did produce some interesting buildings and had a certain ecstatic quality. Its little naughtinesses are sometimes a rather refreshing contrast to so much of the virtuous but dull work of today, which rarely sings and seems to need so much printed matter to explain its virtues!

It was fundamentally the outcome of the great fluency which the architects of the period had with the pencil, gained by very thorough schooling. The eye was then well trained; outline, grouping and the sense for shape were generally good, and the detail (however riotous at times) always rewards careful study. Inspiration for this often came from further afield than Greece or Rome and good shapes were often gleaned from exotic styles and well adapted. The *pompier* was however stuff which had to be done well, and after its hey-day it of course became sugary. Nevertheless, it had something to teach, if only *joie de vivre*.

Incidentally, there is in the opera museum a photograph of Garnier and some of his staff (wearing 'imperials' and flowing ties) against a background of a large drawing of an early project for the façade. This reveals how much the building was improved in execution. Also can be seen, in another photograph, the enormous hoarding which surrounded the site and kept architectural criticism at bay until it was struck!

I am, Sir, Yours faithfully,

PHILIP C. HARRIS [*F*]

## UNQUALIFIED CLERKS OF WORKS

DEAR SIR,—It has been brought to the notice of my Committee that cases have occurred where applicants for the post of Clerks of Works stated that they have either been elected as members or passed our examination when, in fact, they have done neither.

Obviously this is objectionable, both to prospective employers and to us, and if architects interviewing candidates who claim connection with the Institute wish to check such claims, I shall be pleased to supply the information required, either by telephone (THOrnton Heath 1238) or through the post.

Yours faithfully,

W. J. GIBBINS,

*Secretary, Institute of Clerks of Works of Great Britain Incorporated, 5 Broughton Rd., Thornton Heath, Surrey.*

# Book Reviews

**The Age of Inigo Jones,** by *James Lees-Milne*. 9¾ in. 242 pp. incl. pls. and pp. of illus. text illus. Batsford. 1953. £2 2*s*.

Over a span of two centuries, from Layer Marney to St. Paul's, the amalgam of diverse influences had fused sufficiently to produce an anglicised form of classical design that sprang from the Italian Renaissance.

Two of these influences, in particular, are elucidated admirably by Mr. Lees-Milne in his *Age of Inigo Jones*; the hitherto unrealised influence of Rubens as exemplified by the writings of Sir Balthazar Gerbier and in the work of Peter Mills, and that peculiar French root which sired the Coleshill of Sir Roger Pratt. Gerbier, whose portrait by Dobson suggests a sensitive but self-indulgent character, seems to be of unknown quality still, for there is little by his hand extant other than Cromwell House, Highgate, which for me at any rate now takes on additional piquancy due to Mr. Lees-Milne. And then there is the work of that pathetic figure John Webb, 'the first professional architect of the English Renaissance', who is placed precisely and, I think, justly for the first time. The irony of his work—and not that of Jones—providing the model for the Burlingtonians is one of those exciting twists of fortune so common in history.

This book is most interesting and informative, yet the author's very description of it as a reference book indicates its limitations and emphasises its lack of construction. The many vignettes of individual buildings produce an almost soporific effect, especially when unaccompanied by illustration (admittedly hard to find), besides preventing that continuity so essential to such a broad subject. After a pedestrian start on Jones's stagecraft (there is a good comparative assessment of this and Webb's contribution by James Laver in *Drama, Its Costume and Décor*), the central figure fades away, soon overwhelmed by the valuable new evidence submitted on the work of his disciple and successors. This, incidentally, led to one Sunday paper reviewer dismissing Jones as 'a disagreeable old man'.

Little is known about Inigo Jones's background, so completely did he shield his private life, yet despite this paucity of colour Mr. Lees-Milne has kept the setting severely muted in subservience to his erudite exposition of Jones's art. After all, Jones lived in an epoch both graceful and brutal, both colourful and sombre; he was the contemporary of the notorious Sir Thomas Overbury, with whom Ben Jonson picked a quarrel (as he did with Jones), of the fabulous Buckingham and his doting master, the effete James I, to whose pageant-loving Queen Jones owed his initial chances, of the misguided Charles I whom he served in his prime, and of Cromwell who darkened the last decade of his life.

Mr. Lees-Milne does, it is true, suggest that Webb's wife Anne may have been the natural daughter of bachelor Jones, but somehow this intriguing and enigmatic personality, so abused by the malicious Jonson, eludes the probing analysis that the author devotes to other things. He concedes most graciously his debt to J. A. Gotch's study of Inigo Jones, but whilst establishing the true or probable authorships of the many and varied buildings attributed to this incomparable 'amateur' over the years he loses in the process the little personality with which Gotch managed to imbue his subject.

This deficiency in intimacy, however, does not prevent me from recommending this book. It should not be missed.

CHRISTOPHER GOTCH [*A*]

**The Village Hall. The Site and Building,** by the *National Council of Social Service*. (Village Hall series, No. 1.) 8½ in. 24 pp. text illus. 1953. 2*s*.

The first of a series of advisory booklets for those concerned with the provision and management of village halls—helpful to architects, too.

**Portable Fire Extinguishing Appliances,** by the *Fire Protection Association*. (Technical booklets, No. 6.) 8½ in. vi + 33 pp.

This useful booklet analyses the suitability of different types of portable fire-extinguishing appliances, gives instruction on their installation, care and management, and lists those approved by the Fire Offices' Committee.

**A Symposium on Prestressed Concrete Statically Indeterminate Structures . . . 1951.** Papers and discussion. *Cement and Concrete Association* and *Prestressed Concrete Development Group*. 9¾ in. v + 180 pp. text illus. 1953. £1 5*s*.

The symposium held in London in September 1951 was the first to be held on this subject, and both the theoretical and practical aspects of continuity using the three main systems of post-tensioning in use in Britain were treated—Freysinnet, Magnel-Blaton and Lee-McCall. The authors of the papers include the leading European authorities on prestressing.

**Spon's Architects' and Builders' Price Book.** 79th ed. (1953–54), by *Davis, Belfield* and *Everest*. 7¼ in. (ix) + 719 pp. Spon. £1 5*s*.

Yet another new and revised edition of this reliable and familiar reference book has appeared. A new feature is a selected list of brand names of building products with the makers' names and addresses. Otherwise the arrangement of the contents is hardly modified and most users will probably consider this to be an asset.

**Principles of Builders' Estimating,** by *R. G. Bailey*. 9¼ in. vii + 102 pp. Crosby Lockwood. 1953. 7*s*. 6*d*.

A simple, but thorough, text-book, primarily for students of quantity surveying, and specially bound so that the pages lie flat on the desk, wherever it is opened.

# Notes and Notices

## NOTICES

**Fifth General Meeting, Tuesday 2 March 1954 at 6 p.m.** The Fifth General Meeting of the Session 1953–54 will be held on Tuesday 2 March 1954 at 6 p.m. for the following purposes:—

To read the Minutes of the Fourth General Meeting held on 2 February 1954; formally to admit new members attending for the first time since their election.

Mr. F. J. B. Watson, F.S.A., to read a paper on 'English Villas and Venetian Decorators'.

(Light refreshments will be provided before the meeting.)

**Session 1953–1954. Minutes IV.** At the Fourth General Meeting of the Session 1953–1954, held on Tuesday 2 February 1954 at 6 p.m.

Mr. Howard Robertson, M.C., A.R.A., S.A.D.G., President, in the Chair.

The meeting was attended by about 250 members and guests.

The Minutes of the Third General Meeting held on Tuesday 5 January 1954, having been published in the JOURNAL, were taken as read, confirmed and signed as correct.

The President delivered his address to architectural students, and Mr. Basil Spence, O.B.E., A.R.A., A.R.S.A. [*F*], read his review of the work submitted for the Prizes and Studentships 1954.

On the motion of Professor Robert H. Matthew, C.B.E. [*A*], seconded by Mr. Harold Conolly [*F*], a vote of thanks was passed to the President and Mr. Spence by acclamation, and was briefly responded to by them.

The presentation of prizes was then made by the President in accordance with the Council's Award.

The proceedings closed at 7.35 p.m.

**British Architects' Conference, Torquay, 26–29 May 1954.** The British Architects' Conference in 1954 will be held at Torquay from 26 to 29 May at the invitation of the Devon and Cornwall Society of Architects. A list of hotels prepared by the Conference Executive Committee is given below and members intending to be present at the Conference are advised to reserve accommodation as soon as possible.

**British Architects Conference, Torquay, 26 to 29 May 1954.**

LIST OF HOTELS

| Hotel | Address | Rooms | | Daily Bed and Breakfast | | Garage | Remarks |
|---|---|---|---|---|---|---|---|
| | | Single | Double | From | To | | |
| **(1) Licensed Hotels.** | | | | | | | |
| C Palace Hotel .. | Babbacombe Road | 54 | 93 | 26/– | 45/– | Yes | The Conference Banquet will be held here |
| B Imperial Hotel .. | Park Hill Road | 60 | 60 | 35/– | 45/– | Yes | |
| A Grand Hotel .. | Torbay Road | 60 | 80 | 26/– | 32/– | Yes | |
| A Victoria Hotel .. | Belgrave Road | 21 | 58 | 25/– | — | Adj. | |
| B Torbay Hotel .. | Sea Front | 37 | 83 | 27/6 | 41/3 | Yes | |
| A Palm Court .. | Sea Front | 33 | 67 | 17/6 | 19/6 | — | |
| B Queens Hotel .. | Victoria Parade | 14 | 39 | 25/– | 27/6 | — | |
| C Carlton Hotel .. | Daddyhole Plain | 26 | 32 | 21/– | — | Yes | |
| A Abbey Lawn Hotel | Belgrave Crescent | 15 | 45 | 20/6 | — | — | |
| A Belgrave Hotel .. | Belgrave Road | 20 | 30 | 25/– | — | Parking 3 + | |
| A Rosetor Hotel .. | Chestnut Avenue | 42 | 39 | 25/6 | — | Parking Yes | |
| A San Remo Hotel .. | Belgrave Road | 13 | 25 | 22/6 | — | — | |
| C Osborne Hotel .. | Meadfoot | 45 | 58 | 32/6 | — | Parking — | |
| C Oswald's Hotel .. | Palermo Road, Babbacombe | 9 | 41 | 18/6 | — | Parking Yes | |
| **(2) Private Hotels—25 bedrooms and over.** | | | | | | | |
| A Conway Court .. | Warren Road | 7 | 28 | 20/– | — | — | |
| A Crofton House .. | Croft Road | 7 | 22 | — | — | — | Full board from 24/– a day |
| A Chillingworth .. | Belgrave Road | 8 | 36 | 17/6 | — | Parking — | |
| A Cavendish .. | Belgrave Road | 20 | 27 | 17/6 | — | Parking — | |
| A Roslin Hall .. | Belgrave Road | 14 | 36 | 21/– | — | Yes | |
| A Roselea .. .. | Chestnut Avenue | 11 | 17 | — | — | Yes | Full board from 36/– a day |
| A Kistor .. .. | Belgrave Road | 8 | 20 | 18/6 | 22/6 | — | |
| A Toorak .. .. | Chestnut Avenue | 40 | 50 | 22/– | 25/– | Yes | |
| B Southlands .. | The Terrace | 6 | 21 | — | — | — | Full board from 25/– a day |
| A Vernon Court .. | Warren Road | 15 | 35 | 19/6 | 22/6 | Parking Yes | |
| **(3) Smaller Private Hotels—under 25 bedrooms.** | | | | | | | |
| A Cornerways .. | Belgrave Road | 6 | 17 | 10/6 | 12/6 | — | |
| B Apsley .. .. | Torwood Gardens | 2 | 13 | 15/6 | — | — | |
| A Shedden Hall .. | Shedden Road | 4 | 15 | 17/6 | — | Parking Yes | |
| A St. Elmo .. .. | Belgrave Road | 5 | 6 | 12/6 | — | — | |
| A Trelawney .. .. | Belgrave Road | 2 | 10 | 12/6 | — | — | |
| C Norcliffe .. .. | Babbacombe Downs Road | 2 | 5 | 18/– | — | Yes | |

All the hotels are in Torquay. Those marked 'A' are within ½ mile radius of the Conference Headquarters at Torre Abbey, those marked 'B' within 1 mile radius, and those marked 'C' within 1½ miles radius.

The hotels are a representative selection of various grades and in various parts of the town. There are, of course, many other hotels and boarding houses and complete lists may be obtained from the Secretary, Torquay Hotels Association, Torquay.

In view of the wide range, it has been thought inadvisable to reserve any accommodation, and members wishing to attend the Conference are advised to make their reservations as soon as possible, direct with the hotel of their choice mentioning the purpose of their visit.

**Annual Subscriptions and Contributions.** Members' subscriptions and Students' contributions for 1954 became due on 1 January.

The amounts are as follows:

| | £ | s. | d. |
|---|---|---|---|
| Fellows .. .. .. .. | 7 | 7 | 0 |
| Associates .. .. .. .. | 4 | 4 | 0 |
| Licentiates .. .. .. .. | 4 | 4 | 0 |
| Students .. .. .. .. | 1 | 11 | 6 |

For members resident in the trans-oceanic Dominions who are members of Allied Societies in those Dominions, and for members resident overseas in areas where no Allied Society is available, the amounts are as follows:

| | £ | s. | d. |
|---|---|---|---|
| Fellows .. .. .. .. | 4 | 4 | 0 |
| Associates .. .. .. .. | 3 | 3 | 0 |
| Licentiates .. .. .. .. | 3 | 3 | 0 |

**Composition of Subscriptions for Life Membership.** Fellows, Associates and Licentiates of the R.I.B.A. may become life members by compounding their respective annual subscriptions. Full details may be obtained on application to the Secretary, R.I.B.A.

**The R.I.B.A. Appointments Department.** Members and Students of the R.I.B.A. and the Allied Societies are reminded that the services of the Institute's Appointments Department are available to employers requiring assistants and to assistants seeking salaried employment.

Employers are invited to notify the Secretary of vacancies in their offices, giving details of the work to be done, the qualifications required, and salaries offered.

Assistants should preferably call at the offices of the Appointments Department, but if this is not practicable they should obtain from the Secretary an application form, which when completed and returned to the Institute will enable the Department either to send the applicants particulars of vacancies suitable to their qualifications and requirements or submit their names for vacant posts.

Members and Students seeking official appointments should note that normally these are fully advertised in the weekly professional press, and that therefore the Appointments Department do not as a rule notify them to those on the register.

The Institute will also be glad to advise on most matters concerning architectural employment, including overseas appointments.

**Formal Admission of New Members at General Meetings.** New members will be asked to notify the Secretary R.I.B.A. beforehand of the date of the General Meeting at which they desire to be introduced and a printed postcard will be sent to each newly elected member for this purpose. On arrival at the R.I.B.A. on the evening of the General Meeting new members must notify the office of their presence and will then take their places in the seats specially numbered and reserved for their use. On being asked to present themselves for formal admission, the new members will file out in turn into the left-hand aisle and after shaking hands with the President (or Chairman) will return to their seats by way of the centre aisle.

Formal admission will take place at all future Ordinary General Meetings of the present Session.

**Cessation of Membership.** Under the provisions of Bye-law 21 the following have ceased to be members of the Royal Institute:—*As Associates:* Manohar Gopalrao Bhogle, John Lawrence Greenwood, Mohammad Hashmat Raza, Josephine Dorothy Ann Smuts-Muller.

# COMPETITIONS

**Competition for the Equipment of Railway Installations: Grand Duchy of Luxemburg.** Notice has been received from the Secretary-General, International Union of Architects, of an architectural competition being promoted by the Government of the Grand Duchy of Luxemburg for the equipment of railway installations. Despite representations made by the International Union, the conditions of this competition are not in accordance with the Regulations for International Competitions in Architecture and Town Planning approved by the International Union, **and members and Students R.I.B.A. are accordingly warned not to take part in this competition.**

**Crematorium, Kirkcaldy.** The Royal Burgh of Kirkcaldy invite registered architects to submit in competition designs for a crematorium to be erected at Dunnikier Park, Kirkcaldy.
Assessor: Dr. Ronald Bradbury, A.M.T.P.I.[*F*].
Premiums: £300, £200, £100.
Last day for submitting designs: 8 May 1954.
Conditions may be obtained on application to the Town Clerk, Town House, Kirkcaldy.
Deposit: £2 2*s* 0*d*.

**Dow Prize Competition.** The Illuminating Engineering Society offers a prize which will be awarded to the winners of a competition intended to encourage collaboration between students of illuminating engineering or of those branches of engineering concerned with illumination, and students in other fields in which applied lighting plays an important part. While entries from individuals are not excluded, the competition is primarily intended for students (under the age of 26) working in collaboration. The competition will be set and judged by a panel of assessors appointed by the Society in co-operation with the R.I.B.A. and the Institution of Electrical Engineers.
Premium: £75 (and a certificate to each member of the winning team).
Certificates of commendation will be awarded to any other entries of outstanding merit.
Last day for submitting designs: 15 November 1954.

Relevant documents with instructions as to the form which entries should take will be available on 1 April, but forms of application may be obtained now from the Secretary of the Illuminating Engineering Society, 32 Victoria Street, London, S.W.1.

## COMPETITION RESULT

**Dublin Port and Docks Board: New Head Office Building**

1. (Not awarded.)
2. Mr. Alan Hope, B.Arch. (L'pool), A.M.T.P.I. [*A*].
3. Mr. Liam Boyle, B.Arch.
4. Messrs. G. P. O'Brien, Brendan Morris, D. P. McCullagh and F. C. Browne.

Commended: Mr. John L. Griffith, B.Arch. (N.U.I. Dublin).

# BOARD OF ARCHITECTURAL EDUCATION

**The Final Examination, December 1953. Results.**

The Final Examination was held in London, Leeds, Manchester, Newcastle, Edinburgh and Belfast from 25 November to 4 December 1953.

Of the 379 candidates examined, 129 passed as follows:—

| | |
|---|---|
| Passed Whole Examination .. .. | 84 |
| Passed Whole Examination, subject to approval of Thesis .. .. .. | 9 |
| Passed Part 1 only .. .. .. .. | 34 |
| Passed Part 2 only .. .. .. .. | 2 |
| | 129 |

250 candidates were relegated.

The successful candidates are as follows:—

*Whole Examination*

Appleby: H. G.
Barber: E. A.
Batt: A. G.
*Berryman: J. S.
Booth: C. E. (Miss)
Bott: O. J. P.
Brookbank: D. A. P.
Buckingham: B. J. S.
Burton: Keith
Caddy: H. R.
*Caffry: C. W.
Campbell: D. W. I.
Carson: G. L.
Carter: A. K. F.
*Clark: S. F.
Davidson: G. K.
Davies: D. W.
Davis: N. C.
Day: M. R.
Denham: K. L.
Dobb: A. J.
Drought: T. R.
Durell: C. A. (Miss)
Ellison: E. D.
Elson: Stanley
*Francis: J. W.
Franklin: R. G.
Fraser: R. S.
Gathern: R. C.
Hadwick: Geoffrey
Hall: Peter
Hammond: F. W.
Harbott: C. C.
Hardy: A. J.
Henton: A. S.
Holt: T. B.
Howell: G. W.
Hudek: J. F.
Hudson: Brian
Hutton: G. H.
Hynch: G. R.
Ingelbrecht: D. M.
Ives: D. S.
Johnston: N. J.
Jones: D. G.
Kendrick: P. J.
Litchfield: Patrick
*Lloyd: B. J.
Long: K. S.
*McNicol: Leo
Marshall: V. D.
Morgan: D. C.
Newberry: M. A.
Neyman: Lech
Palmer: Rosemary (Miss)(Distinction in Thesis)
Partridge: Barry
Pearce: J. G.
Pillinger: G. D.
Piper: G. B.
Podleski: C.
Randall: D. E.
Read: Harry S.
Robinson: R. F. P.
Roe: S. A. (Distinction in Thesis)
Rolf: C. E.
Rottenberg: Gerson
Rowlands: J. D.
Satterley: Ann (Miss)
Scrivins: D. C.
Shaw: C. R.
Shawcroft: Brian
*Sloan: Merrick
Stark: J. G.
Stevens: D. A.
Stone: P. R.
Swinson: A. H.
*Teare: Frederick
Thomas: G. J. W.
Thurgood: V. J.
Turner: E. N.
Turner: F. A. J.
Vincent: P. G.
Walker: F. H. H.
Walker: P. R.
Warner: B. G.
Waterhouse: P. M. (Miss)
Waugh: Keith
Weeks: L. A.
Westlake: R. F.
*Wickham: H. L.
Willis: G. E.
Wilson: A. S.
Wilson: Michael

*Part* 1 *only*

Baranowski: M.
Billam: D. M.
Blachnicki: H. W.
Butler: J. L.
Combs: Harold
Curtin: P. C.
Dean: D. C.
Edginton: J. A.
Entwistle: D. K.
Gardner: J. T.
Hardy: J. A.
Hubbard: N. S.
Jones: S. R.
Judd: S. V. (Miss)
Kaye: Clifford
Kershaw: P. A.
Kudianavala: P. H.
Lees: Derrick
Len: Stanislaw
MacKenzie: F. A. A.
MacMillan: Andrew
Pollard: Herbert A.
Radinger: A. P.
Simpson: B. M.
Smith: D. L.
Smith: P. T.
Stanley: Noel
Sturges: H. W.
Sumner: J. B.
Tonge: J. M. (Miss)
Turner: Frank
Way: M. H.
White: Ronald
Wright: K. C. J.

*Part* 2 *only*

Blair: K. V.
Payne: Roy

* Subject to approval of Thesis.

**The Special Final Examination, December 1953.**

The Special Final Examination was held in London, Leeds, Manchester, Newcastle, Edinburgh and Belfast from 25 November to 4 December 1953.

Of the 294 candidates examined, 72 passed as follows:—

| | |
|---|---|
| Passed whole Examination .. .. | 59 |
| Passed Part 1 only .. .. .. .. | 13 |
| | 72 |

222 candidates were relegated.

The successful candidates are as follows:—

*Whole Examination*

Alderton: Harry G.
Allen: John C.
Ashby: S. R. J.
Barnett: N. J.
Batty: J. G.
Baverstock: W. H. J.
Bestley: J. W. R.
Bond: F. A.
Borton: D. G.
Bowden: G. L.
Chevalier: P. H.
Clarkson: Lawrence
Cockram: N. L.
Cummins: E. E. G.
Curtis: W. H.
Dean: P. N.
Dunne: J. M.
Fairs: Ernest
Fidler: K. G.
Fletcher: W. A.
Gibson: F. R.
Harris: S. L.
Helyar: Leonard
Howitt: J. P.
Jeffery: E. C.
Johnston: Harvey
Jones: J. N.
Jones: Stanley
Kain: R. D.
Leighton: E. S.
Long: I. D.
Lorenz: Erhard
McClenaghan: Alexander
MacDonald: A. G.
McKelvie: J. N.
McLean: Thomas
Malson: B. W. C.
Nichols: W. H. F.
Oltmanns: Peter
Owen: R. E.
Paine: J. W.
Pilkington: Louis
Potter: R. J.
Priestley: Bryan
Quin: J. F.
Reed: L. L.
Reeves: E. S.
Rhodes: G. L. H.
Rylatt: Jack
Sandwell: S. T.
Stephens: T. G.
Stroud: E. A.
Sutherland: J. D.
Syborn: V. J.
Thomas: S. F. E.
Towler: E. R.
Townsend: Sydney
Wakeham: G. W.
Wintle: O. W.

*Part* 1 *only*

Acton: J. D.
Burgess: L. D.
Holliman: P. G. E. (Miss)
Jones: A. E. E.
McAlister: J. A.
Michaelian: Haikaz
Parker: K. W.
Ritchie: W. C.
Throssell: E. R.
Tinson: F. W.
Turpin: J. W.
Wesolowski: M. J.
West: J. C. J.

The following candidates have also passed the Special Final Examination:—

Franklyn: D. H.
Inskip: J. A.
Raimes: A. S.
Ross: Alan
Smith: Arthur W.
Smith: Derek
Waskett: A. H. J.
Wiseman: E. G.
Woodhams: Leonard

# ALLIED SOCIETIES

**Hampshire and Isle of Wight Architectural Association, Western Chapter. Annual Dinner and Dance.** The annual dinner and dance of the Western Chapter of the Hampshire and Isle of Wight Architectural Association was held at the Grand Hotel, Bournemouth, on Friday 11 December, and was attended by over two hundred members and guests. The guests were received by the Chairman of the Western Chapter, Mr. W. G. Seaton [*A*], and Mrs. Seaton, and by the President of the Association, Mr. Gordon Sutcliffe [*A*], and Mrs. Sutcliffe.

After the Loyal Toast, the Chairman proposed the toast of 'Our Guests and Ladies', which was responded to by the Mayor of Poole, Alderman Miss M. M. Llewellin, J.P., by Mr. John B. Brandt [*F*], Chairman of the Central Chapter of the Hampshire and Isle of Wight Architectural Association, and by Mr. Clifford Hayward, President of the Bournemouth, Poole and Christchurch Association of Building Trades Employers.

Other distinguished guests were the Mayor and Mayoress of Bournemouth, the Mayor and Mayoress of Christchurch and the Mayor and Mayoress of Lymington, Mr. W. L. Clowes, the Borough Engineer of Bournemouth, Mr. B. T. Webb, President of the New Forest Association of Building Trades Employers, and Mr. F. E. Courtney, Principal of the Southern College of Art, Bournemouth.

**Birmingham and Five Counties Architectural Association. Annual Dinner and Dance.** The annual dinner and dance of the Birmingham and Five Counties Architectural Association was held at the Grand Hotel, Birmingham, on 22 January. Mr. C. E. M. Fillmore [*F*], President, was in the Chair. There were 365 members and guests present, including 43 official guests.

The President of the Association proposed the toast of 'The City' and the Lord Mayor of Birmingham, Alderman G. H. W. Griffith, responded. Sir Alfred Bossom, Bt., LL.D., J.P., M.P.[*F*], proposed the toast of 'The R.I.B.A. and its Allied Societies' and Sir Lancelot Keay, K.B.E., Past President R.I.B.A., responded. Mr. R. A. Smeeton [*A*], Vice-President of the Association, proposed the toast of 'Our Guests', and the Bishop of Birmingham, Dr. J. L. Wilson, C.M.G., replied.

**Bristol and Somerset Society of Architects. Lecture.** A public lecture arranged by the Bristol and Somerset Society of Architects was held at the Royal West of England Academy, Bristol, on 12 January at 7.30 p.m. The speaker was Mr. Edward D. Mills [*F*] and his subject was 'Modern Architecture in America'. Mr. Mills has recently returned from a tour of the United States and illustrated his talk with coloured slides and photographs collected during his visit.

An audience of over 150 was present.

# GENERAL NOTES

**Truscon Travelling Scholarship for the Study of Reinforced Concrete Construction.** The Trussed Concrete Steel Co., Ltd., of Lower Marsh, London, S.E.1., offer a travelling scholarship of £100 to enable an Associate of the R.I.B.A. to undertake a continental tour of about three weeks' duration. The winner will be accompanied by a member of the Company's technical staff awarded a similar scholarship, and they will be required jointly to study interesting reinforced concrete work on the continent of Europe with particular reference to the collaboration between architect and engineer. A joint report will be prepared, the use and copyright of which will remain at the disposal of The Trussed Concrete Steel Co. Ltd. Applicants must be under 35 years of age and must provide evidence of their office experience and of their special interest in the subject of the scholarship, i.e., the use in contemporary architecture of reinforced concrete.

Applications must be submitted by 5 April 1954 to the Secretary, The Trussed Concrete Steel Co., Ltd., Lower Marsh, S.E.1, and must contain the following particulars:—

(A) Age.
(B) Architectural education.
(C) Academic qualifications.
(D) Present occupation or employment.
(E) Evidence of the candidate's suitability for appointment to the Scholarship. A knowledge of one or more European languages would be of value.
(F) The names of two persons to whom reference may be made regarding the candidate's fitness for appointment to the scholarship.

The applications will be considered by a selection committee consisting of two representatives of the R.I.B.A. and one representative of The Trussed Concrete Steel Co. Ltd.

**Permanent Development of the South Bank.** The London County Council have asked us to say that the following were members of the team which worked on the scheme in addition to those given in the article in the last issue of the JOURNAL: T. W. Bliss, Dip.Arch. (The Polytechnic) [*A*], D. F. Medhurst, D.F.C. [*A*], I. M. Purdy [*A*].

**Royal College of Art: Lethaby Lectures.** The second lecture by the Lethaby Professor of Architecture, Professor Basil Ward, Hon. A.R.C.A. [*F*], on 'W. R. Lethaby and his Times' will take place on Wednesday 17 March at 5 p.m. in the Henry Jarvis Hall at the R.I.B.A. Chairman: The Hon. Lionel Brett [*F*].

**S.P.A.B. Lethaby Scholarship.** The Society for the Protection of Ancient Buildings announce that applications for the Lethaby Scholarship should be received by 19 March by the Secretary, S.P.A.B., 55 Gt. Ormond Street, W.C.1. The Scholarship carries a grant of not less than £80 payable in monthly instalments over six months and the selected student is expected to study and report on the repair and renovation of ancient buildings, living where such work is being done. The Society will assist him to study a variety of works under different masters and he must make measured drawings of the buildings on which he is engaged. A second scholarship on the same terms has been made available; the donor of it wishes to encourage applications from the West Country.

**R.I.B.A. Golfing Society Annual Dinner.** The first annual dinner of the Society was held at the Milestone Hotel on Friday 22 January and was attended by some 70 members and guests.

Mr. Oliver Chesterton proposed the toast of the Society, which was replied to by the President, Sir Giles Gilbert Scott, O.M. [*F*]. The health of the guests was proposed by the Captain, Col. Arthur Henson [*F*], and was responded to by Mr. Andrew Polson. Entertainment was provided by Miss Daisy Hill with humorous songs at the piano.

The evening was voted a great success, and it was resolved to make this dinner an annual event.

# Membership Lists

**ELECTION: 2 FEBRUARY 1954**

The following candidates for membership were elected on 2 February 1954.

AS HON. FELLOW (1)

**Halifax: The Right Hon. The Earl of,** K.G., O.M., G.C.S.I., G.C.I.E., York.

AS HON. ASSOCIATES (3)

**Baker: Professor John Fleetwood,** O.B.E., M.A., Sc.D., D.Sc., M.Inst.C.E., Cambridge.
**Montgomery: (Mrs.) Molly Audrey,** Amersham.
**Trueman: Sir Arthur (Elijah),** K.B.E., D.Sc. F.R.S.

AS FELLOWS (11)

**Cowie: James Macneil,** D.A. (Glas.) [*A* 1939], Motherwell.
**Galbraith: Thomas McKay** [*A* 1927], Wednesbury.
**Hanly: David Patrick,** B.Arch. (N.U.I. Dublin), A.M.T.P.I.[*A* 1943], Dublin.
**Hill: Henry Alexander,** Dip.Arch. (Dunelm) [*A* 1936], South Shields.
**King: Jack Ian** [*A* 1928], Wellington, New Zealand.
**McColl: Samuel,** [*A* 1934], Hamilton.
**Pritchard: Frederick Thomas,** [*A* 1937], Abingdon.
**Richardson: John Athol,** [*A* 1938], Salisbury, S. Rhodesia.
**Stone: Reginald Leslie,** [*A* 1942], Birmingham,
**Torrens: Richard Michael,** M.B.E. [*A* 1938], Taunton.
**Williams: Ivan,** [*A* 1938], Eastbourne.

AS ASSOCIATES (328)

**Ackerman: Stuart Frederick William,** Dipl. Arch. (Northern Polytechnic), Watford.
**Adams: Thomas Edward,** Dip. Arch. (Birm.), Birmingham.
**Adamson: Roland George,** Hull.
**Allcoat: Antony John,** Dip.Arch. (Birm.), Coventry.
**Almond: George Critchley,** Sale.
**Ambrose: Brian Hamilton,** Dip.Arch. (Leics.), Derby.
**Andrews-Jones: Michael,** B.A. (Cantab.).
**Aston: Stuart Raymond.**
**Atkinson: John Robin,** M.A. (Cantab.), Dip. Arch. (Leics.), Cultra, Co. Down.
**Avery: Joseph Anthony,** B.Arch. (Dunelm), Newcastle upon Tyne.
**Ayshford: Anthony Grover,** Thorpe Bay.
**Back: Lionel Edgar,** Dip.Arch. (The Polytechnic).
**Bacon: Michael John,** B.Arch. (L'pool).
**Bailey: James,** B.Arch. (L'pool), Chester.
**Baker: Gerald Douglas,** Canterbury.
**Baker: (Miss) Margaret Monica,** Winchelsea.
**Ball: Thomas David,** Dip.Arch. (Leics.), Leicester.
**Balmforth: John Herbert,** Sydney, N.S.W., Australia.
**Banting: Peter.**
**Barnes: Colin Sidney,** Preston.
**Baverstock: John Charles,** B.Arch. (Toronto), Toronto, Ontario, Canada.
**Bayley: Alan Charles,** Croydon.
**Bayliss: Stanley,** Dip.Arch. (Birm.), Birmingham.
**Bentley: Harry,** Radcliffe.
**Beresford: John William,** B.A.(Arch.) (Lond.), Surbiton.
**Berresford: Ivor Gordon,** Maidstone.
**Berry: Charles Ian,** B.Arch. (L'pool), Malton.
**Berry: Thomas Macpherson,** D.A. (Glas.), Barrhead.

**Billington: Geoffrey Charles,** Dip.Arch. (Birm.), Birmingham.
**Bingham: Jonathan David,** Dip.Arch. (Leics.), Northampton.
**Birchall: Robert Joseph,** Cannock.
**Birtles: (Mrs.) Patricia,** B.Arch. (L'pool), Liverpool.
**Bisset: (Miss) Hazel,** D.A. (Glas.), Glasgow.
**Blakely: Samuel Arthur.**
**Bloomfield: Anthony John,** Ilford.
**Bond: George Alan,** Hull.
**Bonwick: Henry,** Westcliff-on-Sea.
**Bovingdon: Leslie Robert.**
**Bowdon: Robert,** Bishop Auckland.
**Bowen: Arthur Alfred Beresford,** Dip. Arch. (The Polytechnic), Welling.
**Bowes: Derek Wellesley,** Richmond, Surrey.
**Box: John Godwin,** Sydney, N.S.W., Australia.
**Brander: William Gordon,** Dip.Arch. (Abdn.), Clochan, Banffshire.
**Brown: Lieut.-Col. Charles Norman,** M.B.E., D.A. (Glas.), Hamilton.
**Brown: John Donaldson,** D.A. (Glas.), Glasgow.
**Brown: Norman Ainsworth,** M.C.D., B.Arch. (L'pool), Penrith.
**Brown: Rodger James Robert,** Hamilton, New Zealand.
**Buck: John Anthony,** Huddersfield.
**Burnhill: Charles Sykes,** Wakefield.
**Burrows: Joseph Norman,** Dipl.Arch. (L'pool), St. Helens.
**Burton: John Miller,** B.Arch. (Manitoba), Regina, Saskatchewan, Canada.
**Buttall: Albert Frederick,** Bristol.
**Buxton: Leslie,** Truro.
**Bynoe: Peter Cecil Alexander.**
**Callaghan: Gerald,** Dipl.Arch. (Leeds), Leeds.
**Cannon: Geoffrey Lovell,** Redbourn.
**Case: Ian Carden,** Dipl.Arch. (Oxford), Poole.
**Cave-Browne-Cave: Anthony,** D.S.O., Dip. Arch. (Birm.), Warwick.
**Cawte: John Frederick William,** Ewell.
**Chapman: Maurice Alan,** Bristol.
**Chard: Austin Richard,** Liverpool.
**Charlton: (Miss) Maureen,** Dip. Arch. (Leics.), Luton.
**Chellis: Raymond Victor,** Woodford.
**Claridge: Robert John,** Southsea.
**Clark: Donald,** Leigh-on-Sea.
**Clark: Keith Henry Jesse,** Iver.
**Coakham: Gwilym Desmond George,** Bangor, Co. Down.
**Cochrane: Timothy John,** Chelmsford.
**Cole: John Arthur,** Bournemouth.
**Coleman: Nyall Powell,** Auckland, New Zealand.
**Collins: Gerard John.**
**Comely: Christopher Basil,** Dip.Arch. (Leics.), Gloucester.
**Cook: William Harold,** Winsford.
**Cooke: Geoffrey Francis,** Weston-super-Mare.
**Coombe: Anthony Arthur.**
**Cornfield: Donald George,** Birmingham.
**Coulson: William Metcalf,** Monkseaton.
**Cox: William Arthur Albert,** Bromley, Kent.
**Crawforth: William,** Hull.
**Cronin: David Watkins,** B.Arch. (N.U.I. Dublin), Clonskeagh, Co. Dublin.
**Cunningham: James Napier,** D.A. (Glas.), Paisley.
**Daniel: Peter Geoffrey,** B.Arch. (L'pool), Liverpool.
**Darlington: Edgar,** Stoke-on-Trent.
**Davidson: John Burton,** D.A. (Glas.), Dip.T.P. (Glas.), Ayr.
**Davies: Trevor de Pont,** A.A.Dipl., Harlow.
**Davies: William Herbert,** St. Helier, Jersey.
**Davis: Ian Thomas Maxwell,** B.Arch. (L'pool), Chester.
**Devlin: Terence,** B.Arch. (L'pool), Preston.
**Diamantis: Nicholas Theodore,** B.Arch. (L'pool).
**Dick: Hector McDonald,** D.A. (Glas.), Glasgow.
**Dick: Wilfred,** Dip.Arch. (Dunelm), Morpeth.
**Dickson: William Paterson,** D.A. (Edin.), Edinburgh.
**Digby: Jack Leonard Stanford,** Harlow.
**Dixon: Harry Roberts Marsham,** West Boldon.
**Donald: David Ross Hunter,** D.A. (Glas.), Bridge of Allan.
**Dorner: Ignaz,** Johannesburg, S. Africa.
**Dowsett: James Gordon,** A.S.T.C. (Arch.), Singapore.
**Duek-Cohen: Elias,** M.A. (Oxon.), B.Arch. (L'pool).
**Dunnington: Clifford William,** Leeds.
**Eber: Peter,** D.A. (Glas.), Hunter's Quay.
**Edge: Mark David,** B.Arch. (L'pool), Altrincham.
**Edwards: Roger Jeremy,** Dip.Arch. (Birm.), Dudley.
**Eeles: Ivor James Newman,** Studham.
**Ericsson: John Norton,** Dip.Arch. (Birm.), Birmingham.
**Estell: Malcolm Jefferson,** B.Arch. (Dunelm), Durham.
**Evans: Donald,** Dip.Arch. (Birm.), Stourbridge.
**Fagg: Arthur John.**
**Fenwick: Colin,** Huddersfield.
**Fiske: Thomas Nelson,** A.F.C., West Bridgford.
**Fletcher: (Mrs.) Mary Cynthia Joan,** Darlington.
**Ford: Frank Howard.**
**Francis: Felix Michael,** Dip.Arch. (Leics.), Leicester.
**Francis: Howard Edgar Sidney.**
**Gadd: Frederick John,** Gravesend.
**Garth: William Alfred** [*L*], Wellington, New Zealand.
**Geall: Roy George,** Hellingly.
**Geary: Thomas Matthew,** B.Arch. (N.U.I. Dublin), Limerick.
**Gee: John Brian,** Dip.Arch. (Leics.).
**Gibbs: Kenneth Howard,** Bristol.
**Gillespie: John Waland,** Dip.Arch. (Leics.), Harpenden.
**Gledhill: John Metcalfe,** Sale.
**Godfrey: Robert Mather,** Larbert.
**Goodchild: John Stephen James,** Weymouth.
**Gotch: Christopher Llewelyn.**
**Greene: Raymond Stokes.**
**Gulwell: Wallace.**
**Hall: Charles Frank,** Taunton.
**Hall: Ian Beavis,** B.Arch. (L'pool), Southport.
**Hall: (Mrs.) Lois Brenda,** B.Arch. (L'pool), Southport.
**Halpern: Hilary Anthony,** Dipl.Arch. (Leeds), Leeds.
**Hamann: George Frederick,** B.Arch. (Toronto), Toronto, Ontario, Canada.
**Hammond: Kenneth Ernest,** Dip.Arch. (Leics.), Leicester.
**Hardy: Frank Charles,** Bradford.
**Harlow: Keith Edward Maxwell,** B.Arch. (L'pool), Wallasey.
**Harries: John Jenkin.**
**Harrison: Norman Barnett,** B.Arch. (Dunelm), Northallerton.
**Hart: Lionel John,** Dipl.Arch. (Oxford), Oxford.
**Hartley: Brian,** Skipton.
**Hay: Geoffrey Duke,** Hull.
**Head: Derek d'Esterre,** Brighton.
**Henderson: Trevor Alexander,** M.C.D., B.Arch. (L'pool), Donaghadee, Co. Down.
**Hendon: Donald Oliver,** Brighton.
**Henness: Cyril John.**
**Higgs: Kenneth George,** Bexhill.
**Hill: Thomas Coulthurst,** Bury.
**Ho: Kok Kit,** A.S.T.C. (Arch.), Chatswood, N.S.W., Australia.
**Holden: Roy Alexander Simms,** Dip.Arch. (Birm.), Aldridge.
**Holmes-Siedle: Ian Christopher Nicholas,** B.A. (Cantab.), Derby.
**Holt: (Miss) Valerie,** Dip.Arch. (Birm.), Malvern Wells.
**Houston: James Brodie Gilmour,** D.A. (Glas.), Kilbirnie.
**Hudson: (Miss) Gene,** Brighton.
**Hume: Malcolm Stewart,** D.A. (Glas.), Kilmarnock.
**Hunter: Leslie.**
**Hutchings: Victor John,** Watlington.
**Iden: Charles Frank,** Croydon.
**Inskip: John Allan.**
**Irvine: Paul,** B.Arch. (L'pool), Derby.
**Ivens: Roger John,** Freetown, Sierra Leone, British West Africa.
**Jamieson: Victor Charles,** Shoreham-by-Sea.
**Jarvis: William Geoffrey,** D.A. (Glas.), Glasgow.
**Jefferies: (Miss) Patricia Marie,** Seven Kings.
**Jelley: Warwick Vaughan,** Dip.Arch. (Leics.), Leicester.
**Jenkins: Denzil,** Dip.Arch. (The Polytechnic).
**Johnson: Charles Archibald Howard,** Bournemouth.
**Johnstone: (Miss) Pamela Jean.**
**Jones: (Miss) Dorothy Eileen Garnock,** B.Arch. (L'pool), Wirral.
**Jones: Henry Tawney,** Dipl.Arch. (Leeds), Cardiff.
**Joyce: Donovan George,** Carisbrooke, Isle of Wight.
**Judson: Thomas Burrows,** B.A.Arch. (Lond.).
**Keen: Russell,** Sutton-in-Ashfield.
**Kelly: Gerald John,** Dipl.Arch. (U.C.L.), Stevenage.
**Kennedy: (Mrs.) Monica Clare Petrazycka,** D.A. (Edin.).
**Kerr: George Howard,** D.A. (Glas.), Saskatoon, Saskatchewan, Canada.
**Kew: George William.**
**Kilner: Allen,** Leeds.
**King: Roy Reginald Percy,** Petts Wood.
**Knight: Alan John.**
**Kohler: Michael William,** Wonersh.
**Landis: Stanley,** Dip.Arch. (Leics.), Leicester.
**Legerton: Owen William,** Chelmsford.
**Leigh: John,** Cheltenham.
**Lewis: (Miss) Vivien Maud.**
**Lister: Anthony Galen,** Hull.
**Little: Cyril Leslie,** Romford.
**Lloyd: Donald Crawford,** Grays.
**Longbone: John Manzeh,** Dip.Arch. (Dunelm), Newcastle upon Tyne.
**Lord-Smith: Peter John,** Cirencester.
**Lucas: Roland Peter,** Banbury.
**Lyster: Christopher Brittain,** B.A. (Cantab.), Malvern.
**McColl: (Miss) Margaret Stirling Palmer,** D.A. (Glas.), Paisley.
**McConnell: Raymond,** Dip.Arch. (Dunelm), Dacca, East Bengal.
**Maccormick: James Clayton,** B.Arch. (Melbourne), Melbourne, Victoria, Australia.
**Macdonald, Bruce,** B.Arch. (Rand), Salisbury, S. Rhodesia.
**MacFarlane: Duncan Gilmour,** D.A. (Glas.), Kilmarnock.
**McHenry: Peter Alistair Leslie.**
**MacKenzie: Alexander Simon,** D.A. (Glas.) Glasgow.
**McLeod: Donald Arthur Gordon,** M.A. (Cantab.), Cambridge.
**McMillan-Scott: Walter Theodore Robin,** B.A. (Cantab.), Thornbury.
**Manning: Edwin Warren,** B.Arch. (Toronto), Toronto, Ontario, Canada.
**Margerrison: Ronald,** Westcliff-on-Sea.
**Marsden: John,** B.Arch. (L'pool), Liverpool.
**Marston: (Miss) Marilyn,** B.Arch. (L'pool).
**Martin: Dennis Herbert,** B.A.(Arch.) (Lond.), Thornton Heath.
**Mather: John,** Dipl.Arch. (L'pool), Liverpool.
**Maxwell: Joseph Daniel Wood,** D.A. (Glas.), Dip.T.P. (Glas.), Thornhill.
**Maynard: Peter Leslie,** Cheadle Hulme.
**Meek: John Edwin,** Southampton.

**Melhuish: Reginald Edgar,** Horsham.
**Meyer: Alfred.**
**Meylan: David Cedric,** Dip.Arch. (Birm.), Redditch.
**Miles: Peter Lewis,** Whitstable.
**Millar: Stanley Taylor,** Newcastle upon Tyne.
**Miller: Frank,** Dip.Arch. (The Polytechnic), Godalming.
**Miller: Thomas Muir,** D.A. (Glas.), Glasgow.
**Mitchell: Robert Faulkner,** Eastbourne.
**Moody: Frederick Alan,** B.Arch. (Dunelm), Darlington.
**Moore: Edward,** Dipl.Arch. (U.C.L.), Oakley.
**Morgan: David Peter Geoffrey,** Dipl.Arch. (Northern Polytechnic), St. Albans.
**Morrissey: William,** Dipl.Arch. (L'pool), Corby.
**Mould: Ronald Frederik.**
**Mount: James Selwood,** B.Arch. (L'pool), Church Stretton.
**Mudd: Bryan Albert,** Bingley.
**Mull: Arthur Stranraer,** D.A. (Glas.), Dollar.
**Munro: Edward David,** D.A. (Glas.), Glasgow.
**Narayan: Udit,** Dip.Arch. (Auck. N.Z.), Suva, Fiji.
**Newman: Duncan Stuart,** Eastbourne.
**Niblock: John,** Belfast.
**Nicholls: Ronald Leslie.**
**Nimmo: William,** D.A. (Glas.), Wishaw.
**Nisbet: John Bickley Wood,** Dip.Arch. (Leics.), Leicester.
**Noble: Robert Scott,** D.A. (Glas.), Dip.T.P. (Glas.), Bridge of Weir.
**Olive: Dan,** Weston-super-Mare.
**O'Rourke: John,** Leeds.
**Owen: Roy Howard,** B.Arch. (L'pool), Liverpool.
**Page: Dennis Ivan,** Dipl.Arch. (Oxford), Oxford.
**Parr: Antony Lea,** Dip.Arch. (Leics.), Sawbridgeworth.
**Paterson: Thomas Anderson,** D.A. (Glas.), Alva.
**Patterson: Richard John,** Dip.Arch. (Birm.), Birmingham.
**Peacock: Hugh Geoffry Samuel,** Westcliff-on-Sea.
**Peers: Kenneth,** B.Arch. (L'pool).
**Pickford: Stuart Geoffrey,** Leeds.
**Pithavadian: Fenn Bennett,** B.A., B.E. (Madras), B.Arch. (McGill), Madras, India.
**Pitt: Dennis William,** Dipl.Arch. (Oxford), Reading.
**Pollock: Desmond Mathers,** B.Arch. (L'pool), Coleraine, N. Ireland.
**Powell: Henry Graham,** Dipl.Arch. (Oxford), Cheltenham.
**Powell: Keith Raymond.**
**Prendergrast: John Neil,** M.B.E., D.F.M., B.Arch. (L'pool), Liverpool.
**Pryer: Ronald John.**
**Read: James Jolliffe,** B.A. (Cantab.).
**Reid: Donald Alistair.**
**Roberts: Cecil Frank,** Bristol.
**Roberts: Gareth Edward,** B.Arch. (L'pool), Liverpool.
**Roberts: John Gwilym,** B.Arch. (Dunelm), Pwllheli.
**Rosser: Richard Elliott,** St. Austell.
**Rothwell: Kenneth Albert,** Gravesend.
**Roytowski: Bernard Daniel,** B.Arch. (C.T.), Cape Town, S. Africa.
**St. Aubyn Hubbard: Vyvyan Alexander,** M.A. (Cantab.), Chichester.
**Sawtell: David Leslie,** B.Arch. (L'pool), Basingstoke.
**Schwerdt: John Richard,** Lewes.
**Sealey: Antony Francis,** Dip.Arch. (Birm.), Redditch.
**Seaman: Barrie James,** Coventry.
**Sears: Robert William,** Wokingham.
**Sewell: Arthur French,** Carlisle.
**Sheere: Gordon Frederic,** A.A.Dipl.
**Shoolbred: Allan Henry,** Luton.
**Silverton: Derek Norman,** Westcliff-on-Sea.
**Simpson: Robert Winn,** Dipl.Arch. (Leeds), Halifax.
**Sinclair: Allan John Michael,** D.A. (Edin.), Edinburgh.
**Skells: Desmond Clifford,** Dip.Arch. (Leics.), Peterborough.
**Smith: Arthur Walter,** Sutton.
**Smith: James Campbell,** D.A. (Dundee), Dundee.
**Steadman: Kenneth Harding,** Dipl.Arch. (U.C.L.).
**Steeds: Frederick John Lloyd,** D.A. (Glas.), Glasgow.
**Stephens: Frank William,** Mitcham.
**Stephenson: Robert,** Grimsby.
**Stobbs: Gordon Thomas,** Dipl.Arch. (Leeds), Bedford.
**Stoddart: John Godfrey William,** Dipl.Arch. (U.C.L.).
**Straker: Edward Arthur,** Whitby.
**Surridge: (Miss) Catherine Elizabeth,** B.Arch. (L'pool).
**Swallow: Ronald Wilks,** Leeds.
**Swift: Arthur.**
**Taylor: Dennis George,** Dip.Arch. (Leics.), Leicester.
**Taylor: Edgar Gilbert Charles,** Fareham.
**Tempest: John Frederick,** Mansfield.
**Thompson: Arthur James,** B.Arch. (Dunelm), Newcastle upon Tyne.
**Thorburn: Colin Drummond,** D.A. (Glas.), Glasgow.
**Threlfall: Gerald Herbert Goodair,** Hove.
**Tiedeman: John Raymond,** Ilford.
**Tomlinson: George Keith Venables.**
**Tree: Reginald,** Cuckfield.
**Turner: Peter Gordon,** Cheam.
**Twopeny: John Richard Nowell,** B.E. (Arch.) (Adelaide), Aldgate, South Australia.
**Vardy: Ronald Roy,** Leigh-on-Sea.
**Venables: Ernest Leslie,** Wirral.
**Vickers: Kenneth Harry.**
**Voss: Alfred Timothy Middleton,** Dip.Arch. (Leics.), Leicester.
**Walton: Maurice James,** B.Arch. (L'pool), Northampton.
**Ward: James Eric.**
**Ware: John Alex,** Romford.
**Warren: Alan Percival,** Portsmouth.
**Watts: John Allen.**
**Weate: Derek John,** Dip.Arch. (Leics.), Hertford.
**Weaver: Roderick Norman,** B.Arch. (Rand), Port Shepstone, Natal, S. Africa.
**Webb: Brian Walter,** Welling.
**Wells-Thorpe: John Arthur,** Brighton.
**Westmacott: Richard Seymour,** B.Arch. (L'pool).
**Weston: Trevor Frank,** B.A.(Arch.) (Lond.).
**Wheeler: Alfred John,** B.Arch. (L'pool), Liverpool.
**Whitehead: Norman,** Dipl.Arch. (Leeds), Wakefield.
**Whitehouse: Raymond William,** Dip.Arch. (Birm.), Walsall.
**Whitfield: Cyril George,** B.Arch. (L'pool), Liverpool.
**Wickham Robinson: Alan Thomas,** Dipl.Arch. (Leeds), Harrogate.
**Wijesingha: Prema Norbert,** Wellawatta, Colombo, Ceylon.
**Wilcox: John Herbert,** Southampton.
**Williams: Peter Ensor,** Kingston-upon-Thames.
**Williams: Simon Dinham Lewis.**
**Willoughby-Thomas: Mervyn Bryce.**
**Wilson: Robert,** D.A. (Glas.), Glasgow.
**Winter: Peter Pask,** Dipl.Arch. (U.C.L.), Beckenham.
**Wood: Kenneth Brian,** Chessington.
**Woodhams: Leonard,** Cambridge.
**Woods: David Alan,** B.Arch. (L'pool), Wirral.
**Woolfenden: Brian,** Rochdale.
**Worboys: Roger,** B.A. (Cantab.).
**Worden: William Dewhurst,** B.Arch. (L'pool).
**Wright: Alec,** Morden.
**Wyatt: Robert John,** B.A. (Cantab.), Histon.
**Yeap: Geok-Kee,** B.Arch. (Sydney), Penang, Malaya.

## ELECTION: 6 APRIL 1954

An election of candidates for membership will take place on 6 April 1954. The names and addresses of the candidates with the names of their proposers, found by the Council to be eligible and qualified in accordance with the Charter and Bye-laws, are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary, R.I.B.A., not later than Monday, 8 March 1954.

The names following the applicant's address are those of his proposers.

### AS HON. CORRESPONDING MEMBER (1)

**Costa: Dr. Lucio,** Escola Nacional de Bellas Artes, Rio de Janeiro, Brazil; Av. Delfino Moreira 1212, Ap. 6, Rio de Janeiro. Proposed by the Council.

### AS FELLOWS (2)

**Buttrick: Wilfred Thomas,** Dip.Arch. (Manchester) [*A* 1933], 43 Oswald Road, Scunthorpe, Lincs.; 20 Vicarage Gardens, Scunthorpe. W. H. Buttrick, Dr. J. L. Martin, Prof. W. B. Edwards.

**Fairweather: Geoffrey Hubert** [*A* 1939], 6 Queen Anne's Gate, Westminster, S.W.1; The Garden House, Kippington Road, Sevenoaks, Kent. S. H. Loweth, W. H. Ansell, J. M. Easton.

### AS ASSOCIATES (64)

The name of a school, or schools after a candidate's name indicates the passing of a recognised course.

**Adamson: (Miss) Sally Carter,** B.A. (Manchester) (Victoria Univ., Manchester: Sch. of Arch.), Gower Hey, Kensington Street, Hyde, Cheshire. Prof. R. A. Cordingley, H. K. Ablett, E. S. Benson.

**Adie: Donald Woodrow,** Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 17 Wood Vale, Forest Hill, S.E. 23. J. S. Walkden and applying for nomination by the Council under Bye-law 3(*d*).

**Arend: Derek William,** Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 44 Richmond Park Road, East Sheen, S.W.14. J. S. Walkden, C. Scriven, A. W. Hall.

**Bainbridge: Harold Percy Thomas,** Dip.Arch. (Birm.) (Birmingham Sch. of Arch.), 21 Woodland Road, Northfield, Birmingham, 31. A. Douglas Jones, T. M. Ashford, C. E. M. Fillmore.

**Baynton: John Leslie,** Dip.Arch. (Birm.) (Birmingham Sch. of Arch.), 66 Clarendon Avenue, Leamington Spa, Warwicks. A. Douglas Jones, T. M. Ashford, R. G. Cox.

**Bentall: James Pendril,** Dip.Arch. (Sheffield) (Univ. of Sheffield, Dept. of Arch.), 543 Crookesmoor Road, Sheffield, 10. Prof. Stephen Welsh, H. B. Leighton, H. B. S. Gibbs.

**Boobyer: Eric Hunwick,** Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 50 Woodcock Hill, Kenton, Harrow, Middlesex. J. S. Walkden, G. B. Drury and applying for nomination by the Council under Bye-law 3(*d*).

**Boon: John Neville,** Dip.Arch. (Manchester) (Victoria Univ., Manchester: Sch. of Arch.), 40 Farlands Drive, East Didsbury, Man-

chester, 20. Prof. R. A. Cordingley, E. S. Benson, F. M. Reynolds.

**Bradshaw: Ronald,** B.A. (Sheffield) (Univ. of Sheffield, Dept. of Arch.), 'Totley', Pigeon Green, Snitterfield, Stratford-on-Avon, Warwicks. Prof. Stephen Welsh, H. B. Leighton, G. R. Barnsley.

**Brown: Frank Hilton,** Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 72 Alleyn Road, West Dulwich, S.E.21. J. S. Walkden, J. Holman, H. F. Hoar.

**Bullivant: (Mrs.) Patricia Pamela Brown** (Arch. Assoc. (London): Sch. of Arch.), 77G Compayne Gardens, West Hampstead, N.W.6. Arthur Korn, D. L. Bridgwater, Henry Elder.

**Calder: Alexander,** D.A. (Dundee) (Dundee Coll. of Art: Sch. of Arch.), Wellbank Cottage, Harefield Road, Dundee. John Needham, T. H. Thoms, Donald Ross.

**Campbell: Keith William,** Dip.Arch. (Manchester) (Victoria Univ., Manchester: Sch. of Arch.), 6 Pall Mall, Hanley, Stoke-on-Trent, Staffs. J. R. Piggott, Clifton Edwards, E. T. Watkin.

**Carruthers: William Alan,** Dip.Arch. (Dunelm) (King's Coll. (Univ. of Durham), Newcastle upon Tyne, Sch. of Arch.), The Cottage, Shibdon Bank, Blaydon-on-Tyne, Co. Durham. Prof. W. B. Edwards, J. H. Napper, Prof. J. S. Allen.

**Cox: John David,** B.A.(Arch.) (Sheffield) (Univ. of Sheffield, Dept. of Arch.), 12 Troutbeck Road, Sheffield, 7. Prof. Stephen Welsh, H. B. S. Gibbs, H. B. Leighton.

**Cox: Ronald Albert,** Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 97A Pall Mall, Leigh-on-Sea, Essex. J. S. Walkden, and applying for nomination by the Council under Bye-law 3(*d*).

**Craig: Douglas Alexander,** D.A. (Dundee) (Dundee Coll. of Art: Sch. of Arch.), c/o British Linen Bank, Dundee, Angus. John Needham, T. H. Thoms, Donald Ross.

**Crombie: Francis Charles McIntosh,** Dip.Arch. (Manchester) (Victoria Univ., Manchester: Sch. of Arch.), 'The Hollies', 32 Parsonage Road, Withington, Manchester, 20. Prof. R. A. Cordingley, F. L. Halliday, F. M. Reynolds.

**Crowfoot: Colin George,** Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 10 Monro Gardens, Harrow Weald, Middlesex. J. S. Walkden, S. G. Jeeves and applying for nomination by the Council under Bye-law 3(*d*).

**Davy: Charles Anthony Edward,** Dip.Arch. (Sheffield) (Univ. of Sheffield, Dept. of Arch.), 30 Bents Drive, Ecclesall, Sheffield, 11. Prof. Stephen Welsh, A. W. Glover, H. B. Leighton.

**Dobbie: Brian James,** Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 39 Wymering Mansions, Wymering Road, Maida Vale, W.9. J. S. Walkden, Dr. J. L. Martin, A. E. Miller.

**Douglass: Peter,** Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 16 Coniston Road, Old Woking, Surrey. J. S. Walkden, Henry Colbeck, A. H. Ley.

**Dunbar-Nasmith: James Duncan,** B.A. (Cantab.), D. A. (Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), Glen Rothes, Rothes, Moray. L. G. MacDougall, W. H. Kininmonth, W. I. Thomson.

**Durham: Clive Hugh Henry,** Dipl.Arch. (Oxford) (Sch. of Tech. Art and Commerce, Oxford: Sch. of Arch.), Oak Lodge, 33 Quarry Road, Headington, Oxford. J. R. Tolson, E. A. L. Martyn, David Beecher.

**Farmer: Maurice,** D.A. (Dundee) (Dundee Coll. of Art: Sch. of Arch.), The Bungalow, St. Michaels, Leuchars, Fife. John Needham, T. H. Thoms, A. D. Haxton.

**Fernie: Raymond George,** Dip.Arch. (Nottm.) (Nottingham Sch. of Arch.), Burnaston House, Burnaston, Nr. Derby. J. W. M. Dudding and the President and Hon. Secretary of the Nottingham, Derby and Lincoln Society of Architects under Bye-law 3(*a*).

**Fiske: Herbert Percy** [Final], 48 Sydenham Hill, S.E.26. A. H. Powell, H. A. Mealand, C. W. Box.

**Fraser: Angus John,** D.A. (Dundee) (Dundee Coll. of Art: Sch. of Arch.), c/o Messrs. W. H. Saunders & Son, 36 High Street, Gosport, Hants. John Needham, A. C. Townsend, Harry Sherwood.

**Greaves: Jack,** Dip.Arch. (Sheffield) (Univ. of Sheffield, Dept. of Arch.), 51 Coniston Road, Sheffield, 8. Prof. Stephen Welsh, H. B. S. Gibbs, H. B. Leighton.

**Harding: Keith Christopher,** Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 32 Hancroft Road, Hemel Hempstead, Herts. J. S. Walkden, H. K. Ablett, K. J. Lindy.

**Hargreaves: (Miss) Olga Margaret,** B.A. (Arch.) (Manchester) (Victoria Univ., Manchester: Sch. of Arch.), 'Satis', Station Road, Marple, Cheshire. Prof. R. A. Cordingley, Gerald Sanville, L. C. Howitt.

**Hastings: Julian Fredrick Granville,** Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 53 Church Road, Wimbledon, S.W.19. H. S. Goodhart-Rendel, H. L. Curtis, F. G. Broadbent.

**Hazzard: Frank,** B.A. (Arch.) (Sheffield) (Univ. of Sheffield, Dept. of Arch.), 53 Bayswater Road, Birchfield, Birmingham, 20. E. Watson, C. E. M. Fillmore, E. Holman.

**Hemming: Victor Noel,** Dip.Arch. (Manchester) (Victoria Univ., Manchester: Sch. of Arch.), 295A Washway Road, Sale, Cheshire. Prof. R. A. Cordingley, J. P. Nunn, Gerald Sanville.

**Hewanicki: Adam** [Final], 84 Granville Road, S.W.18. C. G. Stillman, R. T. Grummant, Eric Pettengell.

**Holmes: John,** Dip.Arch. (Leics.) (Leicester Coll. of Art and Tech.: Sch. of Arch.), 'Rosedale', Brame Road, Hinckley, Leics. S. Penn Smith, T. W. Haird, C. C. Ogden.

**Horsley: Cyril,** B.A. (Manchester) (Victoria Univ., Manchester: Sch. of Arch.), 51 Wentworth Road, Swinton, Manchester. Prof. R. A. Cordingley, F. L. Halliday, D. Wynne-Thomas.

**Jefferson: John Bryan,** Dip.Arch. (Sheffield) (Univ. of Sheffield, Dept. of Arch.), 74 Huntley Road, Sheffield, 11. Prof. Stephen Welsh, H. B. S. Gibbs, H. B. Leighton.

**Kershaw: Gordon,** B.A. (Sheffield) (Univ. of Sheffield, Dept. of Arch.), 15 Oakenbank Crescent, Lowerhouses, Huddersfield. Prof. Stephen Welsh, Hubert Bennett, A. W. Glover.

**Lakin: Derek Peter,** Dip.Arch. (Nottm.) (Nottingham Sch. of Arch.), 141 Loughborough Road, West Bridgford, Notts. T. N. Cartwright and applying for nomination by the Council under Bye-law 3(*d*).

**Landels: James,** D.A. (Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), 49 Ryehill Avenue, Edinburgh, 6. J. R. McKay, L. G. MacDougall, T. W. Marwick.

**Le Marquand: John Harold,** Dipl.Arch. (Oxford) (Sch. of Tech. Art and Commerce, Oxford: Sch. of Arch.), La Blanche Pierre, Trinity, Jersey, C.I. J. R. Tolson, E. A. L. Martyn, David Beecher.

**Meecham: (Mrs.) Mary Rosalind Anne,** B.A. (Arch.) (Manchester) (Victoria Univ., Manchester: Sch. of Arch.), 34 Chapel Lane, Wilmslow, Cheshire. F. L. Halliday, Prof. R. A. Cordingley, C. G. Agate.

**Meecham: Philip Henry,** B.A.(Arch.) (Manchester) (Victoria Univ., Manchester: Sch. of Arch.), 34 Chapel Lane, Wilmslow, Cheshire. F. L. Halliday, Prof. R. A. Cordingley, C. G. Agate.

**Mill: Donald Norman,** D.A. (Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), 7 Mortonhall Road, Edinburgh, 9. J. R. McKay, T. W. Marwick, W. H. Kininmonth.

**Nicholl: Edgar John,** B.A. (Arch.) (Sheffield) (Univ. of Sheffield, Dept. of Arch.), 53 St. Anthony Road, Sheffield, 10. Prof. Stephen Welsh, H. B. S. Gibbs, H. B. Leighton.

**Ollis: William John Bernard,** A.A.Dipl. (Arch. Assoc. (London): Sch. of Arch.), 1 Albert Terrace Mews, N.W.1. Arthur Korn, Henry Elder, R. F. Jordan.

**Parker: Gerald** [Special Final], 19 Percy Street, Fartown, Huddersfield. S. M. Richmond, Norman Culley, J. G. Berry.

**Pullen: Michael William,** Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 31 Wynyard House, Kennington, S.E.11. J. S. Walkden, Frankland Dark and applying for nomination by the Council under Bye-law 3(*d*).

**Radford: David Hubert Blantern,** Dip.Arch. (Birm.) (Birmingham Sch. of Arch.), 74 Westfield Road, Edgbaston, Birmingham, 15. R. G. Morgan, T. M. Ashford, E. Watson.

**Radley: Ronald Peter,** Dip.Arch. (Manchester) (Victoria Univ., Manchester: Sch. of Arch.), 30 Sherrard Road, Forest Gate, E.7. F. H. Allen, F. L. Halliday, Prof. R. A. Cordingley.

**Redfern: Gordon Francis,** Dip.Arch. (Birm.) (Birmingham Sch. of Arch.), 28 Glyn Mansions, Addison Bridge, W.14. A. Douglas Jones, R. F. Jordan, Sir Charles Mole.

**Riley: Norman Reginald,** Dip.Arch. (Sheffield) (Univ. of Sheffield, Dept. of Arch.), 127 Desborough Avenue, High Wycombe, Bucks. Prof. Stephen Welsh, H. B. Leighton, H. B. S. Gibbs.

**Rothery: Charles Stuart,** Dip.Arch. (Cardiff) (Welsh Sch. of Arch.: The Tech. Coll., Cardiff), 'Rylstone', Brynteg Avenue, Bridgend, Glam. Lewis John, Dr. T. A. Lloyd, C. F. Jones.

**Skeath: Robert Allan,** Dip.Arch. (Manchester) (Victoria Univ., Manchester: Sch. of Arch.), 181 Bond Street, Macclesfield, Cheshire. Prof. R. A. Cordingley, J. P. Nunn, W. C. Young.

**Smith: Donald James Armstrong,** Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), White Eaves, Oakfield Glade, Weybridge, Surrey. J. S. Walkden and applying for nomination by the Council under Bye-law 3(*d*).

**Smith: John Stanley Loughran,** Dip.Arch. (Sheffield) (Univ. of Sheffield, Dept. of Arch.), Warley House, Whitworth Road, Darley Dale, nr. Matlock, Derbyshire. Prof. Stephen Welsh, H. B. Leighton, L. T. Boyman.

**Starczewski: Henryk** [Final], 22 Church Avenue, East Sheen, S.W.14. Frederick Gibberd, Thomas Ritchie, Stuart Bentley.

**Topham: Michael Henry,** B.A. (Arch.) (Sheffield) (Univ. of Sheffield, Dept. of Arch.), 'Domus', Leek Road, Endon, Stoke-on-Trent,

Staffs. Prof. Stephen Welsh, H. B. Leighton, J. R. Piggott.

**Ward: Alan John,** Dip.Arch. (Sheffield) (Univ. of Sheffield, Dept. of Arch.), Tofts Farm, Little Baddow, Chelmsford, Essex. Prof. Stephen Welsh, Harold Conolly, Denis Senior.

**Woodham: Kenneth Nelson,** Dip.Arch. (The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 3 Harold Road, Woodford Green, Essex. J. S. Walkden, J. M. Easton, F. L. Preston.

**Woodhouse: Derek Alfred,** Dip.Arch. (Sheffield) (Univ. of Sheffield: Dept. of Arch.), 51 The Plaisaunce, Newcastle, Staffs. Prof. Stephen Welsh, H. B. Leighton, J. R. Piggott.

**Worthington: Cyril Beesley,** Dip.Arch. (Manchester) (Victoria Univ., Manchester: Sch. of Arch.), 9 Richmond Park Road, Clifton, Bristol, 8. Prof. R. A. Cordingley, E. S. Benson, A. F. French.

**Yandle: Hubert John,** Dip.Arch. (Nottm.) (Nottingham Sch. of Arch.), The Hollies, Martock, Somerset. J. M. Scott and the President and Hon. Secretary of the Nottingham, Derby and Lincoln Society of Architects under Bye-law 3(*a*).

### ELECTION: 15 JUNE 1954

An election of candidates for membership will take place on 15 June 1954. The names and addresses of the overseas candidates, with the names of their proposers, are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary, R.I.B.A., not later than Saturday 22 May 1954.

The names following the applicant's address are those of his proposers.

AS FELLOWS (2)

**Parkin: John Cresswell,** M.Arch. (Harvard), B.Arch. (Manitoba) [*A* 1946], 717 Church Street, Toronto, Ontario, Canada; 17 Castleview Avenue, Toronto. Prof. Eric Arthur, R. S. Morris, W. L. Somerville.

**Ralton: Alan John,** B.Arch. (Melbourne) [*A* 1933), 390 Little Collins Street, Melbourne, Victoria, Australia; 14 Mt. Ida Avenue, Hawthorn, Victoria. R. S. Demaine, W. R. Godfrey, J. F. D. Scarborough.

AS ASSOCIATES (8)

**Bryant: John David Robertson,** Dip.Arch. (Pretoria) (Passed a qualifying Exam. approved by the I.S.A.A.), c/o Messrs. Corrigall, Crickmay & Partners, 414 Permanent Buildings, Paul Kruger Street, Pretoria, S. Africa. Prof. A. L. Meiring, John Innes, G. H. Crickmay.

**Cowie: David Robert,** B.Arch. (L'pool) (Liverpool Sch. of Arch.: Univ. of Liverpool) 376 Metcalfe Avenue, Westmount, Montreal, P.Q., Canada. Prof. L. B. Budden, Prof. R. Gardner-Medwin, B. A. Miller.

**Glen: (Miss) Meriel Sheila,** Dip.Arch. (Pretoria) (Passed a qualifying Exam. approved by the I.S.A.A.), 308 Jacob Mare Street, Pretoria, S. Africa. C. S. Lodge, Prof. A. L. Meiring, W. A. Macdonald.

**Govekar: Shankar Gopal** [Final], Sidhpura Building, 'E' Block, Ground Floor, Gokhale Road North, Dadar, Bombay 28, India. S. H. Parelkar, H. N. Dallas, J. R. Talpade.

**Porsolt: Imric Vojtech** (Passed a qualifying Exam. approved by the N.Z.I.A.), School of Architecture, Auckland University College, Symonds Street, Auckland, C.1, New Zealand. Prof. C. R. Knight, Prof. A. C. Light and the President and Hon. Secretary of the New Zealand Institute of Architects under Bye-law 3(*a*).

**Sharma: Gulab Ghand** [Special Final], Messrs. G. C. Sharma & Sons, 28/G2 Connaught Circus, New Delhi, India. R. L. Gehlote, N. B. Shroff, T. J. Manickam.

**Tio: Seng Chin,** Dip.Arch. (Dunelm) (King's Coll. (Univ. of Durham), Newcastle upon Tyne, Sch. of Arch.), c/o Chief Architect's Office, Public Works Department, Singapore. Prof. W. B. Edwards, J. H. Napper, K. A. Brundle.

**van der Westhuizen: Arthur Lee,** Dip.Arch. (Pretoria) (Passed a qualifying Exam. approved by the I.S.A.A.), c/o Messrs. Erik Todd & Horrell, 44 Prudential House, Pretorius Street, Pretoria, S. Africa. Prof. A. L. Meiring, C. S. Lodge, V. S. Rees-Poole.

# Obituaries

**Leslie Elliott Williamson** [*Retd. L*] died on 27 November 1953, aged 72.

Mr. Williamson trained at Norwich Technical Institute, and started in personal practice about 1900.

Mr. Williamson did a considerable amount of exhibition work, designing the Irish International Exhibition, 1907, apart from the French section, and buildings for the Franco-British, Brussels and Wembley Exhibitions. He also worked in association with Sir Edwin Lutyens on an exhibition of 'Shakespeare's England'. In addition he designed a number of sports pavilions and some private houses.

In his spare time Mr. Williamson was a keen sketcher and water colourist and a collector of antiques.

**Arthur Eric Wiseman** [*F*], past President of the Essex, Cambridge and Hertfordshire Society of Architects, died on 1 December 1953, aged 60.

Mr. Wiseman attended Southend-on-Sea Municipal College and served his articles in that town, and thereafter conducted his practice from Chelmsford. His principal works were St. Monica's Girls' School, Clacton, and the churches of St. John the Divine, Becontree, and St. Patrick, Barking.

**James Henry Wallace** [*L*] died on 12 October 1953, aged 71.

Mr. Wallace served his articles in Aberdeen, with a Mr. Kelly. He then went as assistant to Sir John Burnet [*F*], with whom he spent the greater part of his career, interrupted by periods in Buenos Aires and Rangoon and by service in the Royal Flying Corps in the first world war. During the second war he served as a D.C.R.E. From 1947 onwards Mr. Wallace was in charge of the Edinburgh office of Sir John Burnet, Tait and Partners, and was a partner at the time of his death.

# Notes from the Minutes of the Council

### MEETING HELD 2 FEBRUARY 1954

**1. New Year Honours.** The congratulations of the Council were conveyed to Mr. T. Jarratt [*L*] on the award of the British Empire Medal.

**2. Appointments.** (A) *Liverpool University Court of Governors: R.I.B.A. Representative.* Mr. F. J. M. Ormrod [*F*], President, Liverpool Architectural Society, in place of Mr. F. Charles Saxon [*F*]. (B) *Town Planning Joint Examination Board.* Mr. A. W. Kenyon [*F*] in place of Mr. W. F. B. Lovett [*F*].

**3. Revision of Rules: Devon and Cornwall Society of Architects.** Approval was given to a revision to Rule 4(*b*) of the Rules of the Devon and Cornwall Society of Architects dealing with qualifications for membership of the Society.

**4. Organisation of British Architects' Conferences.** The Council appointed a Standing Committee to consider British Architects' Conferences and to make periodic recommendations on the organisation and programmes of future conferences.

**5. Purchase Tax on Flooring Materials.** The imposition of a purchase tax of 25% on thermoplastic tiles and similar flooring materials was considered. It was agreed that such a tax constituted an artificial additional increase in the costs of housing and that representations on the matter be made to H.M. Treasury.

**6. Membership.** The following members were elected: as Honorary Fellows 1; as Honorary Associates 3; as Fellows 11; as Associates 328.

**7. Students.** 165 Probationers were elected as Students.

**8. Applications for Election.** Applications for election were approved as follows: *Election 6 April* 1954: as Honorary Corresponding Member 1; as Fellows 2; as Associate 64. *Election 15 June* 1954 (*Overseas Candidates*): as Fellows 2; as Associates 8.

**9. Application for Reinstatement.** The application of Mr. Norman Fisher for reinstatement as a Licentiate was approved.

**10. Resignations.** The following resignations were accepted with regret: Bright Fraser [*F*], Ledgar Holdsworth [*F*], Walter Maxted Epps [*Retd. F*], Dennis Charles Earle [*A*], Mrs. Margaret Anne Paul [*A*], Norman Waldo Plunkett [*A*], Eric Anthony Ambrose Rowse [*A*], Harry Edward Bailey [*L*], Hugh Reginald Harry Eades [*L*], Edward William Savery Elliott [*L*], Westley Yorke Feurtado [*L*], George James Grantham [*L*], Richard Jackson [*L*], Harold Edgar Robertson [*L*], Bertie Cooper [*Retd. L*].

**11. Applications for Transfer to Retired Members' Class under Bye-law 15.** The following applications were approved: *as Retired Fellows:* Howard William Burchett, Archibald John McLean; *as Retired Associates:* Charles William Allen, Lionel Newman Barrett, Herbert Edward Illingworth, Joseph Rushbrooke Keyte, Harold Watson; *as Retired Licentiates:* Alexander Inglis, Archibald Thomas Marsh, Stanley Scarr, Albert George Smith.

**12. Obituary.** The Secretary reported with regret the death of the following members: John Penoyre, C.B.E., M.A. [*Hon. A*], Gilbert Fraser, M.C. [*F*], Frederick William Hobill Lee [*Retd. F*], Alfred Percy Morgan [*A*], George William Bird [*L*], Albert Edward Pett [*L*], John Rigby Poyser [*L*], Ernest William Turner [*L*], Bernard Leigh Newman [*Retd. L*], Ernest Alfred Smith [*Retd. L*].

By resolution of the Council the sympathy and condolences of the Royal Institute have been conveyed to their relatives.

# Members' Column

*This column is reserved for notices of changes of address, partnership and partnerships vacant or wanted, practices for sale or wanted, office accommodation, and personal notices other than of posts wanted as salaried assistants for which the Institute's Employment Register is maintained.*

## APPOINTMENT

**Mr. B. J. Kimmins** [*A*] has taken up an appointment as architect to the Ministry of Education and the Fine Arts of the Imperial Ethiopian Government, Addis Ababa and will be pleased to receive trade catalogues at that address.

## PRACTICES AND PARTNERSHIPS

**Mr. Henry Brown** having retired owing to ill health from the partnership of **Messrs. Brown and Wallace,** 55 Ayr Street, Troon, Ayrshire, the practice will be continued by **Mr. Thomas H. Wallace** [*A*] as sole partner, the firm's name and address remaining unchanged.

**Mr. John C. Clayton** [*A*] has entered into partnership with Mr. Kenneth L. Bond and Mr. A. W. Mogridge. The practice is now being carried on at 204 Clark Building, Calgary, Alberta, under the style of **Clayton and Bond.**

**Mr. K. W. Clayton** [*A*] has begun practice at Carbrey House, 12 St. George's Terrace, Perth, Western Australia, and will be pleased to receive trade catalogues, etc.

**Messrs. Cobb and Powell** [*F*/*A*], P.O. Box 988, Kampala, Uganda, have taken into partnership **Mr. Roger Freeman** [*A*]. The name of the firm remains unchanged.

**Mr. David Ellis** [*A*] has returned from Canada, and has joined with **Mr. Donald McLeod** [*A*] in practice under the style of **Ellis and McLeod,** at 83a Regent Street, Cambridge, where they will be pleased to receive trade catalogues, etc.

**Mr. William K. Gill** [*A*] has begun practice at 73 Saltergate, Chesterfield (Chesterfield 4887), where he will be pleased to receive trade catalogues, etc.

**Mr. Arthur V. Gooderson** [*L*] has taken into partnership his son, **Mr. Colin G. Gooderson** [*A*] and **Mr. James D. Colchester** [*L*]. The firm will continue to practise under the style of **Gooderson and Buckley** at 1 Cheyne Court, High Street, Ruislip, Middlesex.

**Mr. Ronald E. Hancox** [*L*] has resigned from his appointment as architect with the Borough of Sutton Coldfield and is practising from Royal House, South Parade, Sutton Coldfield, where he will be pleased to receive trade catalogues, etc.

By mutual agreement **Mr. Ivor Hodges** [*L*] has left the partnership of **Messrs. Lionel H. Fewster and Partners** [*L*] of 22 Conduit Street, London, W.1 to practise on his own account.

The practice of Messrs. Holmes, Son and Archer, of 1 East Parade, Sheffield, 1, and 12 The Strand, Derby, is being carried on under the style of **Holmes, Son, Archer and Maidment,** the partners being **Mr. John D. Maidment** [*L*], **Mr. G. E. Maynard and Mr. J. T. Clarke.** The addresses remain unchanged.

The practice of Messrs. Howard and Benson carried on at 88 Mosley Street, Manchester, 2, by **Mr. Percy Howard** [*F*] and **Mr. E. S. Benson,** M.B.E. [*F*], has been dissolved. **Mr. Benson** has joined the staff of the Manchester University Architectural School. The practice will be carried on by **Mr. Percy Howard** under his own name.

**Mr. H. R. Lister** [*A*] has begun practice at 19 King Street, Great Yarmouth, Norfolk, where he will be pleased to receive trade catalogues, etc.

**Mr. Angus M. MacKillop** [*A*] and **Mr. F. M. D. McIntosh** [*A*] have entered into partnership and will conduct their practice from 274 High Street, Perth, where they will be pleased to receive trade catalogues, etc.

**Mr. Herbert Spink** [*F*] has taken into partnership **Mr. H. Reginald Hyne** [*A*]. The practice is now being carried on under the style of **Edgington, Spink and Hyne,** 52 High Street, Windsor (Windsor 248).

## CHANGES OF ADDRESS AND TELEPHONE NUMBER

**Messrs. Adams, Holden and Pearson** [*FF*] have removed to 38 Gordon Square, W.C.1 (EUSton 7801–4).

The new address of **Mr. R. W. Anderson** [*A*] is 36 St. Clair Avenue West, Toronto, Ontario, Canada.

The telephone number of **Messrs. Beecher and Stamford** [*F*/*A*] of 14 Park End Street, Oxford, is now Oxford 48896.

**Mr. Hugh Clamp** [*A*] has moved to Gloucester Chambers, 65 George Street, W.1 (HUNter 0388), to which address all correspondence should now be sent.

**Messrs. Durnford, Parker and Partners** [*LL*] have removed from 8 Clarges Street, Piccadilly, London, W.1, to 447 Strand (opposite Charing Cross), London, W.C.2.

**Mr. O. Garry** [*A*] has removed to new offices at 15 Robert Adam Street, Manchester Square, W.1.

**Mr. Leslie H. Kemp** [*A*] has changed his address to 32 Wellington Street, Brantford, Ontario, Canada.

## PRACTICES AND PARTNERSHIPS WANTED AND AVAILABLE

Licentiate, 39, at present holding administrative post in private office, seeks partnership in London or Home Counties. Wide experience including industrial work and housing. Good personality and business acumen. Some capital available. Box 7, c/o Secretary, R.I.B.A.

Associate, 38, recently returned from own practice overseas, seeks partnership or position leading thereto in established country practice. Varied experience in England. Competition successes overseas. Some capital available. Box 8, c/o Secretary, R.I.B.A.

Young Associate seeks junior partnership or position leading thereto, in London area. Capital available. Box 9, c/o Secretary, R.I.B.A.

Fellow nearing age of retirement, in long established and varied private practice in north-west of England has vacancy for partner of varied experience. Box 11, c/o Secretary, R.I.B.A.

Fellow, A.M.T.P.I., University trained, contemporary outlook, seeks partnership or preferably practice for sale in Isle of Man or southern England. Box 18, c/o Secretary. R.I.B.A.

Associate (37) seeks junior partnership or position leading thereto in southern England. London area or Home Counties preferred. Wide experience of contemporary design. Some capital available. Box 86, c/o Secretary, R.I.B.A.

## WANTED

Surveying equipment. Level. Staff. Poles, etc. State price. Box 12, c/o Secretary, R.I.B.A.

Two Double Elephant plan chests. Box 19, c/o Secretary, R.I.B.A.

## ACCOMMODATION

Licentiate, F.R.I.C.S., wishing to commence own practice is interested in sharing existing office accommodation, or would take surplus accommodation with use of telephone pending establishing permanent offices; would be willing to assist other practice if necessary. Box 10, c/o Secretary, R.I.B.A.

Member has room to let in his office near Bond Street. Area about 250 sq. ft. Rental £18 per month, including heat, light and share of telephone. Box 13, c/o Secretary, R.I.B.A.

Small architect's offices, furnished, complete with telephone, in West End area of London. Consisting of Principal's office and drawing office, with three drawing boards. Top floor with roof lighting. Available for letting complete—other arrangements will be considered. Suitable for surveyor or engineer. Box 14, c/o Secretary, R.I.B.A.

Furnished office of about 200 sq. ft. in W.1 area at rent of £200 p.a. inclusive of lighting and heating. Use of extension telephone and clerical assistance by arrangement. Box 15, c/o Secretary, R.I.B.A.

Member has leasehold offices for disposal, Manchester Street, W.1, with vacant possession of two floors, about 900 sq. ft. together. Box 16, c/o Secretary, R.I.B.A.

Associate offers share of West End ground floor office, approx. 400 sq. ft. Telephone. Rent £300 p.a. inclusive of rates and lighting. Also to let, first floor office for exclusive use, approx. 500 sq. ft. Rent £650 p.a. inclusive of rates and lighting. Box 17, c/o Secretary, R.I.B.A.

Associate urgently requires office with good light and access. Charing Cross area preferred. Minimum rent essential at first. Box 21, c/o Secretary, R.I.B.A.

*The Royal Institute of British Architects, as a body, is not responsible for statements made or opinions expressed in the* JOURNAL.

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